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EARLY HISTORY
OF THE *Tracts 1617*
ANÆSTHETIC DISCOVERY;
OR
PAINLESS SURGICAL OPERATIONS.



Vide pages 12 and 13.

In a paper read before the British Association, 1869, by Benjamin W. Richardson, M.D., F.R.S., he says—"The ALCOHOLS are strictly anæsthetics, and indeed the first published case of a surgical operation under anæsthetic sleep by inhalation was performed by Dr. COLLYER, on a person rendered insensible by breathing the fumes of alcohol."

BY ROBERT HANHAM COLLYER, M.D.,
ORIGINAL DISCOVERER OF THE NITROUS-OXIDE, ETHER, AND CHLOROFORM PROCESS.

LONDON:
H. VICKERS, 317, STRAND.

1877.

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Vide pages 12 and 13.

EARLY HISTORY
OF THE
ANÆSTHETIC DISCOVERY;
OR
PAINLESS SURGICAL OPERATIONS.

WITH LETTERS TO AND FROM SIR JAMES Y. SIMPSON, DR.
BENJAMIN W. RICHARDSON, AND DR. HENRY BENNET.

BOSTON *versus* HARTFORD.

BY ROBERT HANHAM COLLYER, M.D.,

Registered by the Medical Council of Great Britain;

Original Discoverer of Induced Mental Hallucination—Phreno-Mesmerism;
late Principal Physician to the Cholera Hospital, Mexico; Marine
Hospital, New Orleans, &c. &c.

LONDON:
H. VICKERS, 317, STRAND.

1877.



At the urgent solicitation of numerous friends, I have consented to give a more detailed account than heretofore published as to the motives and incipient causes which eventually led to the Anæsthetic Discovery, or the mode of rendering the body insensible, so that surgical operations could be painlessly performed.

I am not only induced to gratify my friends, but also to re-awaken to memory the scenes of my earliest boyhood's days. I inherited a more than usual sensitively sympathetic disposition, more especially for the sufferings and pains of others, and shunned the society of those who indulged in cruelty to the lower animals. It is somewhat strange that being so constituted I should have chosen medicine and surgery as my profession. It will be seen that it was in the pursuit of my profession circumstances arose which eventually led to the discovery of certainly one of the greatest blessings ever vouchsafed to suffering humanity—the abolition of pain during the most trying period of our existence—*a surgical operation*.

Huge oaks do from little acorns grow.

So it was in my case. I am not unmindful that from the earliest period of historic times means have been sought and devised to alleviate the agonising torture of the poor sufferer during a surgical operation. All efforts had been most indefinite in their results, and not of universal application.

None approached the subject so closely as the illustrious chemist, Sir Humphrey Davy, who inhaled nitrous oxide gas to alleviate pain caused by an aching tooth. He, however, did not imagine a state of *unconscious insensibility*, nor did he inquire into the physiology of its action on the economy.

I cannot in this place resist the inclination to record a circumstance which, though of apparent insignificance in itself, still shows a singular coincidence, and goes to prove that there are unconscious mental impressions conveyed to the brain—during states of extreme sensibility—which impressions may remain latent for years, until some favourable opportunity is presented for their manifestation and development. When a mere child of little more than seven years of age I met Sir Humphrey Davy, under a condition of brain produced by an event the most momentous of our lives—certainly it was the first great nervous shock that I had experienced—the first parting from my dear mother. She had brought me to boarding-school, and left me in care of the landlady of the hotel for a few days. My tender feelings at that time were too strong; I gave way to no ordinary grief. It was at this moment Sir H. Davy arrived with some friends on a fishing excursion. He sympathised with my situation, and took me with him, as he remarked, “to divert my thoughts.” His extreme kindness and his consoling advice made a deep and lasting impression—so much so, that in after years, when attending the chemical lectures of Dr. Edward Turner at the University of London, every time the name of Sir H. Davy was mentioned it recalled the scene of our interview with the most thrilling and pleasurable emotion.

The following letter from one who was much my senior, though a schoolmate, is in confirmation of my statement:—

Rockmount, Bouley Bay, Isle of Jersey,
December 29th, 1871.

My Dear Dr. Collyer,

I was much pleased to receive your letter of the 23rd inst. It brought back forcibly to my mind the recollections of my youthful days, when we were at Fordingbridge together, revelling in all the luxury of youthful recreation and active energetic exercise. I most distinctly recollect Sir Humphrey Davy's visit to Fordingbridge. He was on a fishing excursion with some noblemen, whose names I have forgotten. I accompanied them to the river, and left them enjoying their piscatory excursion. Sir Humphrey Davy was a short stout man. His name with which we were familiar, from our school books, has always remained on my mind.

I am glad to see you are intellectually employed. Next time I go to London, I must call and pay you a visit, and have a chat about old times.

I well remember Mr. Longford, the Principal of the Academy—our

master as we use to call him in those days—commenting on the great attainments and qualities of Sir Humphrey.

Believe me, yours truly,

JOSHUA LE BAILLY.

To R. H. Collyer, Esq., M.D.

At the time of writing this letter, Mr. Le Bailly was a Jurat or Judge of the Royal Court of Jersey.

I also recall the horror produced on my mind when boys indulged in cruelty to animals. I had many quarrels on this account—by the unnecessary infliction of pain—which some seem so much to enjoy and systematically practice as an amusement. It has been this extreme, or, as some would call it, over-sensitiveness of character which has fashioned my actions throughout life. Yes, it has been this sensitiveness which has been the chief incentive, and has enabled me to battle with the fierce opposition in the advocacy of new truths with success, and to obtain the mastery over what seemed at the moment insurmountable obstacles.

It was this sensitiveness which enabled me to advocate, in the years 1840, 1841, 1842, 1843, and 1844, the necessity to produce an Anæsthetic, or painless state, by the inhalation of narcotic and stimulating vapours. I verily believe that but for this determination to conquer the scoff, the jeers, and ridicule of an opposing world, the Anæsthetic discovery might have remained unrevealed—remained, as it were, amongst the host of grand truths which time will eventually cause to be discovered for the benefit of man.

Sir William Fergusson, the distinguished surgeon, said that the Anæsthetic discovery is the greatest, in most respects, that has been made in surgery. His words are: “The discovery of Anæsthesia, or the means of causing insensibility to pain during the performance of operations, has done away with those wild outcries of stifled screams and groans coming from the patient under the surgeon’s instruments. He may be now made to lie as quietly as if in a calm sleep, or possibly during the most painful applications of the knife. Under other circumstances, he may be mentally engaged in the most pleasing associations of thought or singing or humming some favourite air.

Much as the horror, and doubtless much of the hazard, connected with operations, have now been set aside, and the patient can contemplate such means of cure with a calmness and seeming fortitude which even the bravest or most stoical could not maintain in former times. For this valuable discovery we are indebted to our friends across the Atlantic.* There have been disputes as to the amount of merit due to various parties who have, in one way or the other, contributed to the development of our knowledge of this wonderful agency."

That my claim, as the original discoverer, should have remained unrecognized until June, 1870—when the *London Lancet* says, "*To our mind Dr. Collyer is the original pioneer after all—the man who ran first*"—that a doubt should have existed as regards my claim to be years in advance of all other claimants, is not a matter of surprise to me at this moment. I alone am to blame for having shown a careless indifference, which it is difficult to understand without full explanation. Had I combatted more persistently, in December and January 1847, against the contending claimants, with the documents *then* in my possession (many having been lost by fire and water—to be explained hereafter), and done then what I am now doing, no one would have contested my claim to priority as the discoverer. I was satisfied in January, 1847, with the publication of my claim in the *Medical Times* of January and April, 1847; in the *London Critic*, January 9th and April 10th, 1847; *Morning Chronicle*, January 4th, 1847; *Jersey Times* of January 2nd, 1847; so that I did not allow the claims of Wells, Morton, and Jackson to remain uncontradicted at the period of their publication. But the tide of public opinion could not be turned at that moment the great novelty and importance of the discovery itself eclipsed most completely the discoverer; he was lost in the astonishment that pain was really abolished—that great fact monopolised every other consideration. It is always easy to discover our errors after having committed them. Had I then, that is in 1847, remained in England, instead of going to Mexico, and steadily

*This was written by Sir W. Ferguson, in 1848.

and persistently advocated and vindicated my claims as the original discoverer, I should have been recognised, as I am now in 1870 and 1877. When in California, in 1850 to 1853, I constantly published letters in vindication of my claim to priority. Some of these are reproduced in the Appendix.

It was only on the occasion of the death of Sir James Y. Simpson, of Edinburgh, in 1870, that the proprietors of the *Lancet* published a complete History of the Anæsthetic Discovery, which task was confided to Dr. Benjamin W. Richardson, that my claim to be recognised as the original discoverer, was prominently brought forward. I was at that period a resident of Lille, Department du Nord, France. Dr. Richardson wrote me, that if I would send him what documents I had remaining in my possession, he would do me ample justice. How this promise was fulfilled, these pages will show. I consider that I have good cause of complaint, as that portion of the history of Anæsthesia, published in the *Lancet*, June, 1870, concerning myself, while conceding my *priority* to all other claimants, so misrepresents and perverts the most important features attendant on the mode of conducting the original investigation,—which eventually led to the discovery—that, though the merit of my originality is fully admitted in the most unmistakeable language, as in summing up the contending claims, Dr. Richardson says—“*Enthusiastic COLLYER is, to our minds, the true pioneer after all—the man WHO RAN FIRST.*” What I object to, is the tone with which the whole article is penned, and also as being so contrary to the attendant circumstances which led to the discovery.

In all probability, these pages would never have been written, had not a most unmistakeable error occurred, one of vital importance to my reputation, as it compromises my knowledge of the true physiological condition of the brain and nervous system during the Anæsthetic state, which error has not been corrected to this day, now seven years since its publication. To ask the reader to peruse these pages without prejudice or bias, would be to ask him to forget his own being, for we are all the creatures of certain predilections and fixed opinions; it is impossible to divest our minds of these preconceived

ideas—they constitute our individuality—their manifestation indicates our character.

The contents of this volume involve the detailed circumstances attendant on the Anæsthetic discovery, the full and impartial investigation of the relative claims of those who followed my teachings of 1840, 1841, 1842, and 1843, which must necessarily include personal matters, which I sincerely trust will be faithfully performed by me without any bias, my aim being the strictest regard to be governed by the facts of the case.

It must not be forgotten that, as my claim ante-dates all others by years, I have never admitted that either Horace Wells or W. T. G. Morton were at any time competitors or rivals with myself. I am convinced that the task will be most easy in demonstrating that what they did, arose entirely from the knowledge they obtained from my public lectures, experiments, and publications from 1840 to 1843. It must be stated that neither Horace Wells or W. T. G. Morton had received a medical education.



NERVOUS CONGESTION,

OR THE

ANÆSTHETIC STATE.

It was in 1840 that my researches commenced. These experiments were made on Frogs, Rats and Mice, in order to produce a state of insensibility; I prosecuted these with indefatigable perseverance for over four years. It was in 1842, that I produced a state of unconscious insensibility, by the inhalation of narcotic and stimulating vapours, which I then called a nervous congestion of brain, in contradistinction to *congestion* produced by an excess of blood. This great physiological discovery was published by me in May, 1843, not in a newspaper, but in a pamphlet especially written by myself on the subject, several copies of which are still in existence. My language is not ambiguous, but is expressed in words which cannot admit of two interpretations—I there say, “The nervous congestive state (Anæsthetic) can be produced by the inhalation of narcotic and stimulating vapours.” I have described most clearly throughout the pamphlet what I meant by the *congestive state*. I use at page 17, line 14, these words—“before any attempt has been made to produce the UNCONSCIOUS or congestive state.” Again at page 15—“Some are deprived of all consciousness, others lose SENSIBILITY but retain consciousness, some have a mere glimmering consciousness WITH LOSS OF SENSIBILITY;”—in fine, in some twenty places I use these words—“THE NERVOUS CONGESTIVE OR UNCONSCIOUS STATE.”

Let it not be forgotten now in 1877, that in 1842, no one, not a single person, had ever made experiments in the *inhalation* of narcotic and stimulating vapours, with the object specially in view, of discovering a method of rendering *Surgical Operations painless*. The necessity, or even advisability of producing a state of unconsciousness during a Surgical Operation, was not acknowledged by the profession. One of the most celebrated French Surgeons, Velpeau, in 1839, says—“*To do away with pain in Surgical Operations is a visionary impossibility, which is now not permitted to be thought of; the cutting instrument and pain in Surgical Operations, are two things which cannot be presented to the mind of the one without the other; we are obliged to admit the necessary*

association, that is, pain and Surgical Operations." It was years before the use of ether and chloroform were generally resorted to in private practice. Such is the dogged, pertinacious obstinacy of some men in the admission of any newly developed truth.

It is stated on the best authority, that when Harvey discovered the circulation of the blood, and announced his discovery, that the medical profession laughed at him, and persisted that the arteries *were air vessels*. He had to withstand, in the advocacy of truth, the buffoonery of his age and time. As for myself, I rather liked and enjoyed it, having the consciousness that truth was on my side.

It is so at this moment, has ever been so, and no question exists in my mind that to the end of time it ever will be so; that otherwise intellectual educated men will oppose truth, not from the love of opposition, but because it does not conform and dovetail with their preconceived ideas. Intellectual men, as a rule, are honest in the desire to discover truth. Still, every great discovery has been opposed by the scientific men of the day.

The dread of the surgeon's knife has existed from immemorial. No argument could satisfy or convince a patient that the cutting instrument was not accompanied by the most excruciating pain. There are thousands who are naturally so imaginatively sensitive, that the mere anticipation of the necessity of a Surgical Operation having to be performed, experience the greatest mental torture, much more severe than the most intense physical suffering. So intense is oftentimes the mental shock, so as to compromise life itself, even before the operation has commenced. It is not always the bravest or most courageous who bear Surgical Operations with the greatest fortitude.

When a student of medicine at sixteen years of age, I have known many a poor patient succumb under the surgeon's knife. One case I cannot forget. On my first course of lectures I witnessed at the Middlesex Hospital one of the most thrillingly heartrending scenes, which it is possible to imagine. A fine young woman of about twenty-five years of age, with a countenance of the most refined character, well developed forehead, large eloquent blue eyes, features most beautifully proportioned. She was placed on the operating table for the removal of cancer of the neck of the uterus. Mr. Herbert Mayo, assisted by Sir Charles Bell and Mr. Arnott were the operators. There were probably some 70 or 80 students present. It was my lot or chance to be in the front row, quite close to—nearly touching the head of the patient. The operation commenced, and never will be erased from my memory; her piercing heartrending cries, her terribly agonizing screams, the grinding of the teeth, the spasmodic twitchings of the muscles, the distortion of that lovely countenance, every feature was writhing in terror and agony, the large eyes actually starting from their very sockets—then imploring for mercy—help. Every fresh cry seemed to pierce my too sensitive heart. I felt sick

and faint. The poor creature's voice became more and more feeble, and after some twenty minutes of intense suffering she gave a long stifled groan, a quivering tremble of the whole frame. Her eyes were fixed on mine, she *gaspèd* and died. That fixed look of death I can ne'er forget. I, who had sympathized too intensely, knew no more, all became dark, consciousness was lost, by the *nervous congestion* of my own brain. What is syncope, if it is not a nervous congestion? It is certainly a withdrawal of the nervous fluid from the surface to the centres. In that prostrate state I remained for some minutes; on recovering I found myself in the operating theatre, being attended by one of the hospital nurses; everyone else had left.

For a student to swoon in those days—and I expect it is very much the same now—was considered by them as a positive indication of a *weakness* approaching to imbecility.

It was a long time before the ridicule attached to that exhibition of my weakness wore away. It so happened that the very next operation I mustered courage to witness also terminated fatally, but contrary to the expectation of my fellow-students I did not faint. My power of Will was fully adequate to the occasion. I was mentally prepared, as I was fully aware that if I exhibited another *weakness* I would have gratified some, who considered it in the light of a pleasant joke, at my expense. I was resolute that they should be disappointed.

I, however, took the first occasion to ask the distinguished surgeon of the hospital, Samuel Cooper, Professor of Surgery at the University, if some means could not be devised for the alleviation of pain to the patient during a surgical operation. Mr. Cooper, who was really one of the most kindhearted men, and gentle in his manners, said to me "When you get older, and have had more experience, these tender emotions will be overcome."

Time, however, instead of hardening, or rendering me more callous or obdurate, seemed to produce a settled conviction of the imperative necessity to deaden pain during the period of a surgical operation.

The stinging ridicule of my fellow-students had produced a lasting impression, perhaps an unconscious determination, whose full force was only developed in after years. Such, in reality, was the fact, otherwise I cannot account for the reason which prompted me in my investigations from 1840 to 1846, in the search for the discovery of a means of alleviating the suffering attendant on a surgical operation, which after two years, in 1842, resulted in the discovery that the inhalation of all stimulating and narcotic vapours produced a state of unconscious insensibility, that is the anæsthetic state, which fact I published, as before stated, in May, 1843.

I may here mention that the surgical department of my profession always possessed for me a peculiar fascination, and to which I devoted special study. On leaving the hospital, where I frequently assisted Mr. Cooper, he gave me the following certificate. The publication

now for the first time in this connection will not be considered out of place :—

WOBURN PLACE, RUSSELL SQUARE,

December 3rd 1835.

I have great pleasure in bearing testimony to the high professional attainments and excellent moral character of Mr. Robert H. Collyer. From the zeal and success with which he studied the various branches of medical science at the London University, I am sure he is capable of discharging very efficiently the duties of surgeon in any service, and I am equally convinced that he will manifest not only great professional skill, but the strictest honour and integrity in whatever situation he may be placed.

SAMUEL COOPER,

*Professor, Surgery, University of London.
Consulting Surgeon to the North London Hospital.*

On my arrival in New York I called on my true and steadfast friend, through many years of my life, Dr. Valentine Mott. He voluntarily added to the above certificate these words—

I have pleasure to know the distinguished Surgeon who gives the foregoing certificate, and believe the public may have full confidence in the gentleman, Mr. R. H. Collyer, it so fully sets forth.

VALENTINE MOTT.

New York, June 14, 1836.

Professor of Surgery, New York.

Unforeseen family reasons had caused me to leave England some two years earlier than I originally intended. On which I petitioned the Council of the College of Surgeons, London, that as I had completed my curriculum of lectures, and had over two years of hospital practice, that I should be admitted for examination for the diploma. I was a minor; my petition was opposed solely on that ground, my not having attained the necessary age; Sir Astley Cooper, Sir William Lawrence, and Mr. Robert Liston, personally expressed to me their regret at the untoward circumstance of my youth being the sole impediment. All these gentlemen gave me testimonials as to my proficiency. I had also attended two summer courses of lectures and hospital practice in Paris. After my arrival in the United States, I entered the Pittsfield College, and attended a full course of lectures, and graduated as Doctor of Medicine in 1839. I must here state the examination in every department of my profession was most rigidly and impartially conducted before the diploma was granted.

My having so recently arrived from the most celebrated schools of medicine and surgery in London and Paris, I was enabled to judge as to the relative competency and ability of the teachers and lecturers of Europe and America. On hearing for a whole session Dr. Willard Parker, on Surgery; Dr. Elisha Bartlett, on Materia Medica, Therapeutics, and also on Morbid Anatomy; Dr. H. H. Childs, on the Theory and Practice of Medicine; Dr. R. Watts, on Anatomy; I was convinced

that the United States possessed as able professors as could be found in any country of the world. In fine, no one except the most intellectually blind, but must admit, that in no country are the mental faculties so active as in the United States of America. It is the fashion with some men to ignore all diplomas not emanating from their own school.

No university or college can endow or create intellectual brain power. Without this inherent essential, the most erudite and competent professors are of no avail. *Genius is hereditary, it comes from our original stock, even for generations it may remain latent, but it is sure

* I extract from Gortou's Biographical Dictionary the following relative to my Great Grandfather, Great Grandmother, and my Grandfather.

"COLLYER (Joseph), an industrious compiler and translator, died at Islington near London in 1776. His principal work was a 'History of England' in 14 vols., and he assisted in writing a Geographical, Historical, and Biographical Dictionary of the World, 1772, 2 vols. folio. He also made a prose translation from the German of Klopstock's "Messiah," which his wife had commenced, and not completed at her death. He translated entirely from the same language Bodmer's 'Noah,' and the 'History of Sophia Sternheim,' written by Madame La Roche.

"COLLYER R. A. (Joseph), an eminent engraver, was the son of the foregoing, and was born in London in 1748. He was apprenticed to an artist of eminence; and when young he was admitted a member of the Royal Academy, of which he was elected an associate engraver in 1786. Amongst his finest engravings may be mentioned the portraits of George the Third, Queen Charlotte, Sir William Young, F.R.S., Reverend William Tooke, F.R.S.; Venus, from the painting of Sir Joshua Reynolds; The Flemish Wake of Teniers, from the Houghton collection; Review of the Irish Volunteers after Wheatley. Died December 24, 1827.

"COLLYER (Mary) the mother of the preceding. Like her husband, she was engaged in literary pursuits and writing for the press. In 1750 she published 'Letters from Felicia to Charlotte,' 2 vols., which caused her to become the intimate friend of Mrs. Mary Montague, of Portman Square. She is chiefly distinguished as the translator of Gesner's 'Death of Abel,' which was published in 1762, and has been since reprinted."

Mrs. Collyer, my great grandmother, was originally a Miss Banks, sister to John Banks, whose immense estate is now in the possession of the Haberdashers' Company. At the time of her marriage with my great grandfather she was the widow of Mr. Mitchell.

My grandfather was on the most intimate terms of friendship with Sir Joshua Reynolds. He married Miss Dulcey Bella Clayton, sister to the Rev. John Clayton, and aunt to the late Reverend John and George Clayton, clergymen of reputation. Mrs. Collyer, my grandmother, was chosen by Sir Joshua Reynolds as one of his types of English beauty; she was also sister-in-law to Goldsmith's "Jessamy Bride."

I lost the original paintings of my grandmother and grandfather in the Pantechnicon Fire of February, 1874. My grandmother was acknowledged by the best judges to have been a really magnificent woman.

to crop up in after time. It is our ancestors who really stamp our faculties which eventually develop themselves. We are not sufficiently mindful of these remote influences. During the year 1837 and the first part of 1838, in conjunction with my dear father, I was engaged in microscopic researches. It was in 1838 that I delivered some lectures in Baltimore on *nitrous oxide* gas, and made experiments on rats and mice before the public. In connection with the nitrous oxide, now so generally used as an anæsthetic of great value, I must mention a most important circumstance, which makes me retrace my history to the London University, which circumstance, with others correlative, led to the anæsthetic discovery.

It was the custom of Dr. Turner, Professor of Chemistry, every year when nitrogen and its compounds was the topic of his lectures, to give the nitrous oxide gas to those of his class who chose to inhale it. I had watched the result of some four or five students, when an accident occurred—the gas escaped from the gasometer. Dr. Turner then said, that as sulphuric ether had very nearly the same properties, those who chose might try the experiment of inhaling it. No one presenting themselves, I volunteered. On breathing the vapour for some two minutes from a bladder I became unconscious and was carried into the laboratory, where I soon recovered. I mention this fact in the *London Critic* of April 10, 1847, which is important in this connection.

“Huddersfield, Sept. 21st, 1868.

Dear Sir,

I perfectly well remember the seance held in the chemical lecture room at University College, in the year 1835, for the purpose of witnessing the inhalation of laughing gas, when the supply of gas being exhausted, Dr. Turner mentioned sulphuric ether as a substitute, and one of the students volunteered to try it, and that he was very ill in consequence. I cannot say that you were that student, but I do very well remember your name as one of the prominent members of Dr. Turner's class.

Yours very truly,

WM. J. CLARKE.

After having graduated in 1839, I went to New Orleans. It is now that I am brought in contact with what may be truthfully pronounced to be the first Surgical Operation ever performed in a state of unconsciousness, from the *inhalation* of stimulating vapours. This occurred on a plantation on the banks of the Mississippi, opposite Carrollton, about six miles above New Orleans. My dear father, in connexion with M. Laurent Millaudon, worked a large distillery on shares, which, during the season, could produce 3,000 gallons of rum daily. My father had on many occasions observed that the negroes attached to the distillery were much excited and seemed half-intoxicated, and as the distillery was closed on these occasions, he was puzzled as to how they obtained the liquor. One Sunday afternoon, whilst lying on his sofa, smoking a cigar, in December, 1838, he heard

a sudden burst of laughter coming from the interior of the distillery. Being astonished at so unusual an occurrence, having the key in his possession, he unlocked the door, when a scene met his view more easily imagined than described. Some eight negroes were in the act of attempting to raise one of their comrades, "Bob," who lay helpless and insensible on the floor. On instituting an inquiry, the mystery was soon unravelled; it seemed that the negroes had effected an entry into the distillery underneath the brick foundation, which led into a dilapidated "beer reservoir." When once inside, nothing was more easy than raising the trap-door common to each reservoir in the floor of the distillery.

The exterior entrance was kept carefully concealed with brushwood and shrubbery which grows so rapidly and luxuriantly in that climate. When a favourable opportunity presented itself, the negroes were in the habit of treating themselves to a *private inhalation*, which was accomplished by mounting the sides of the large vats containing the rectified spirits; they partially removed the cover, so as to put their heads under the canvas which surrounded the top of the vat. There they would inhale the rum atmosphere, experiencing the exhilarating effects of partial intoxication, which were similar to the breathing of nitrous oxide gas. On this occasion "Bob," from being more sensitive than the rest, fell from the vat, a height of some 10 feet, and in so doing dislocated the hip-joint. The other negroes occupied themselves in putting his leg in various comical positions, which would have been impossible but for the dislocation. This fact, to the negro mind so curious, with their excited state, and their inability to bring "Bob" to consciousness, caused them to be seized with a sudden sense of the ridiculous, which at all times is peculiarly developed in the negro character; they, regardless of their situation, set up a shout of laughter—the well-known Yah-yah-yah—which led to their discovery. When I had reduced this dislocation without the consciousness of "Bob," all the recollections of the past came vividly to my mind.

In October, 1839, in company with Mrs. Sarah Whitman, I called on Dr. Thomas Cleaveland, of Providence, Rhode Island. He succeeded in producing on myself a state of semi-unconsciousness, by the animal magnetic process. This fact was hailed by the most enthusiastic as a revelation regarding the power of the nervous system, with which I was hitherto unacquainted. I had attended the lectures of the most celebrated physiologists, but they had never touched on this influence which one has over another by the exercise of the *will power*—I at once bought the best works on the subject. I found on the 12th of April, 1829, Dr. Jules Cloquet, now Baron Cloquet, had performed a capital Surgical Operation on a lady, rendered *Anæsthetic* by animal magnetism. These are the facts:—Dr. Chapelain magnetized a lady, who, having a cancer of the breast, an operation was considered

indispensable to save her life. She was thrown *into a deep sleep*.* She then undressed herself and took a seat in an arm-chair, sustaining the operation of the entire extirpation of the breast, which lasted twelve minutes, without the least manifestation of pain. On being awakened some time afterwards, she had not the least recollection of what had taken place. The Baron Cloquet is one of the most distinguished surgeons of France—he is a member of the Institute. Of course his name was as familiar to myself as any other professor of England or America. I re-read the account, and when assured that I *had not been mistaken*, asked myself this question—"How is it that so distinguished a surgeon could have borne testimony to such a remarkable phenomenon, still no one followed?"—I was puzzled mentally. The power that Dr. Cleaveland had exercised over me proved that it was a power as yet unknown to the profession.

Next month—November, 1839—being at Pittsfield, Massachusetts, I magnetized most successfully Miss Sarah Bement. I found that she was insensible to pain. After this, I magnetized a great many persons.

It was the combination of these facts, together with that of the negro "Bob," who had inhaled the fumes of alcohol, who became unconscious, and fell some ten feet, and in doing so dislocated his hip joint, which I reduced without his knowledge, which eventually led me to the investigation, with the object of discovering a method of rendering Surgical Operations painless.

In some of my early experiments, in the inhalation of narcotic and stimulating vapours, I met with results which nearly terminated fatally to the person experimented on. This fact made me extremely cautious. At page 55 of my "*History of the Anæsthetic Discovery*," published in 1868, I state—"My friend, Mr. G. R. Gliddon, gave me some Indian hemp (*Cannabis Indica*) which he brought from Egypt. When in Hamilton, Canada, in 1842, I put some live embers on a chafing dish; on these the hemp was placed, which commenced smouldering and throwing off a dense fume. To these were added the vapours from alcohol and ether, which vapours were obtained by putting them (the alcohol and ether) into a glass retort over a spirit lamp. My brother inhaled, and in about two minutes a comatose condition was induced, but so deep that the heart's action was not discovered by auscultation; he presented all the appearance of fatal asphyxia. I only restored him to consciousness after two hours. I resorted to fanning the face and mesmeric *passes* over the chest. To any one unaccustomed to all the varied phenomena of trance—somniaambulism—and more particularly that remarkable collapse or entire prostration of the vital powers induced by excessive drinking, the state induced on my brother would have caused no ordinary alarm."

* Genesis, chap. ii., v. 21.

The second surgical operation on record, induced by the process known as mesmerie or animal magnetism, was published in the "Bostonian," April 23, 1842: "Whilst I was at Bangor, Dr. Dean, a physician of that place, requested Dr. Collyer to visit a child twenty-two months old, in a town sixteen miles distant. He consented, and they went in company with Dr. Rich, an eminent surgeon of Bangor. When they arrived at the house the mother had the child in her arms; its condition was dreadful: there was a scrofulous humour of the size of a hen's egg covering one of the eyes—a surgical operation was necessary. Dr. Collyer took the child and mesmerised her so as to deprive her of *all sensibility*. Dr. Rich then performed the operation of cutting out the eye, which lasted thirty-five minutes, during which time the child did not exhibit the least feeling of pain." Before this operation commenced, when she had been produced to the nervous congestive state, it is quite impossible to find language which will convey a true description of the nature of my thoughts; when on seeing the realization of my long-wished-for state of *insensibility* in a child so tender in years, lying perfectly motionless and insensible, yet before the first incision was made I felt an inward questioning—*Will she feel?* When, however, after thirty-five minutes, on the completion of the operation, and no indications of the least sensibility, the antithesis of the poor woman who had died under the surgeon's knife at the Middlesex Hospital a few years before, whose exasperating torture had caused me *to faint*, which brought the ridicule of my fellow students—all came vividly to my mind. No general, after a great victory, ever felt a more triumphant feeling of exultation. The success of this really wonderful operation on a child, so young, spread everywhere; it awoke all through the United States of America a deep interest in the necessity of rendering surgical operations free from pain.

"Boston Daily Ledger," May 20, 1842.—Dr. Collyer's experiments were very successful. He first mesmerized Frederick, when he showed the reality of his unconscious state by raising and lowering the pulse at pleasure. A young lady was next mesmerized for the express purpose of having a tooth extracted. The tooth was examined by several physicians; Dr. Morton was one, also Dr. Brewster, one of the Council of the Massachusetts Medical Society; they pronounced the tooth to be decayed, but firm in the head. Dr. Kimball, dentist, who had consented to extract the tooth, then applied his instruments, but the tooth was so much decayed that it crumbled and broke, but was extracted on a second trial. During all the time, the physicians, who stood near, said that they did not observe the least change of countenance in the young lady."

It must be remembered than in 1842 and 1843 I considered the condition of the brain during the coma, caused by the inhalation of stimulating vapours, and that induced by mesmerism or other causes,

to be an identical condition of brain physiologically. At this period I supposed the state of unconscious insensibility to be the result of Nervous Congestion, that is, an accumulation of the nervous fluid in the brain.

In the "Boston Daily Ledger," April 15, 1842, I find these words:— "Those who had the pleasure of hearing Dr. Collyer on Tuesday evening will remember that he made some explanation of the nervous fluid during the congestive state of brain. He remarked that it was expended by the muscles, and its exhaustion rendered sleep necessary after the labours of the day, in order to collect a fresh supply. He also mentioned the fact that, when the brain is actively employed, the communication with the body by means of the nerves ceases, so that the person is insensible to injuries received. He illustrated the Roman who allowed his hand to be burnt off to show the enemies of his country what the Romans could bear; the Christian Martyrs under excitement, the Dervishes and Fakirs of Hindoostan, and the soldiers who in the heat of battle receive wounds, being unconscious of the pain until the excitement of the battle had passed. Baron Larrey, the surgeon of Napoleon, gives instances in corroboration of this fact, that during excitement surgical operations were borne without apparent pain."

"Liverpool Mail," October 15, 1843.—"The topic for consideration was Nervous Congestion, or the accumulation of the nervous fluid in the great centres of the brain."

Had it not been for the loss of many valuable documents in my encounter with the banditti in Mexico, July, 1849, and the fire in San Francisco in 1851, I might have added other proofs of my having gone into the whole subject of the Anæsthetics and their application to surgical operations in 1840, 1841, 1842, 1843. This was years prior to any other claimant, as Horace Wells' inhalation of nitrous oxide was in December, 1845, and Morton's sulphuric ether experiment September, 1846.

Nor were my efforts fruitless, for, after two years' exploration in an unknown field of inquiry, I had established the following principles, which were published to the world in 1842 and 1843, that the unconscious or nervous congestive state of brain was produced—

1st.—By great natural or artificial fatigue.

2nd.—By the transmission of the nervous fluid from one person to another.

3rd.—Concentration of the mind on one subject.

4th.—By steadily gazing on an object, called afterwards by Mr. Braid hypnotism.

5th.—By the inhalation of narcotic and stimulating vapours.

Vide "Psychography," or "Embodiment of Thought," published in Philadelphia, May, 1843; "Liverpool Mail," October 12, 1843;

"Liverpool Standard," October 12, 1843.

I had a host of other documents in 1847, which have been lost—1st, By the banditti, in Mexico, July, 1840. 2nd,—Fire, in San Francisco, May, 1851. 3rd.—In the Pantechnicon, London, Feb., 1874.

The discovery and publication of the physiological principle, that the INHALATION of all kinds of narcotic and stimulating vapours, by me in 1842 and 1843, produced a nervous congestive state of brain or anæsthetic state was the result of having proved the fact by experiment on various persons and animals. I also published in 1842 and 1843—

1st.—That the unconscious insensible state induced by the inhalation of vapours, was a nervous congestive state of brain in contra-distinction to an increased flow of blood to that organ.

2nd.—That the Anæsthetic state was not necessarily accompanied by unconsciousness.

I also lectured from 1840 to 1846 in various places. Amongst others I may mention Charleston, S.C., Boston, Providence, Philadelphia, Montreal, Quebec, Toronto, St. John's (New Brunswick), Halifax, Liverpool, Glasgow, Cheltenham, and London. In all these places I persistently advocated the necessity of rendering the patient insensible by inhalation or otherwise during the performance of a surgical operation. I did not confine myself to any particular substance or method to produce the anæsthetic state, as I knew that the inhalation of all stimulating and narcotic vapours had the effect of producing INSENSIBILITY. Vide "Liverpool Mail," Oct. 14, 1843, "Liverpool Standard," Oct. 18, 1843. Dr. Elliotson, in the "Zoist," page 236, A.D. 1843, says—"Mr. Collyer in a pamphlet simultaneously in Boston, Philadelphia, and New York, mentions that trance and the insensible state may be induced by various causes, among the rest by the INHALATION OF NARCOTIC AND STIMULATING VAPOURS."

In a paper read before the British Association, 1869, by Benjamin W. Richardson, M.D., F.R.S., he says: "The ALCOHOLS are strictly anæsthetics, and indeed the first published case of a surgical operation under anæsthetic sleep by inhalation was performed by Dr. Collyer on a person rendered insensible by breathing the fumes of alcohol."

It was Dr. Benjamin W. Richardson who compiled "The History of Anæsthetic Discovery," published in the London "Lancet" from May to July, 1870.

On the death of Sir James Y. Simpson, of Edinburgh. Dr. Richardson wrote me, that if I would furnish him with the documents, still remaining in my possession, showing my priority as the Discoverer of Modern Anæsthesia, he would do me full justice in the forthcoming "History of the Anæsthetic Discovery."

I accordingly collected the documents then in my possession, and sent them from Lille, France, which was my residence. On the appearance of the "Lancet" of Juno 11th, 1870, containing that portion of the History of Anæsthesia, which referred to myself, I at once wrote to Dr. Richardson pointing out that he had (no doubt

inadvertently) made a most serious mistake, one which compromised my knowledge of the physiological actions of anæsthetics. So grave an error I earnestly sought to have immediately rectified.

Dr. Richardson had actually confounded my use of the term "*nervous congestion*" of the brain, and made me use the word "CONGESTION" in the very opposite sense in which I had employed it. I had taken extraordinary pains in all my writings since 1842, to explain that *nervous congestion* was in contra-distinction to an increased flow of blood to the brain. To myself, as the discoverer of a great physiological principle, namely, that the inhalation of all narcotic and stimulating vapours produced an Anæsthetic state—this mistake actually deprived me of the great merit of my discovery, as showing that my original experiments and investigations were not conducted with a knowledge of the physiology of the nervous system. The publication by me of this fact, in 1842 and 1843, which over thirty years of subsequent experience and investigation by the most eminent physiologists of Europe and America have discovered to be the condition of brain during the Anæsthetic state—in fine, corroborating and confirming my views—caused me to be particularly anxious that I should not be misrepresented on a point of such importance. I received the following reply, which admits the mistake made:—

12, Hinde Street, Manchester Square ; June 13th, 1870.

Dear Dr. Collyer,

You are correct ; I did mistake you in the word *congestion*. It is of *minor importance*, but I am glad you correct me.

Yours very truly,

B. W. RICHARDSON.

Judge of my surprise, that so competent, so really distinguished a physiologist should denominate the discovery of the true, physiological condition of the brain during the Anæsthetic state, to be of "*minor importance*." I could not believe that he had rightly understood my letter. I wrote again, entering into details as to how I had made experiments in 1842, and urging him, in the most pressing manner, to at once correct the serious error he had made, which I considered of vital importance, as proving more than any circumstance to the intelligent mind that my original investigations were not of a haphazard character. I was induced to believe it was one of those unwitting mistakes which have only to be pointed out in order to insure an immediate rectification. I soon, however, found that Dr. Richardson was determined that the misrepresentation should go to *my credit*—that my reputation was of no kind of consequence. On re-reading *The Lancet* critically, I discovered that the mistake was not one of inadvertence, for it was made a special subject for a *foot note*, to wit—"*Recent research has led to the opinion, that during sleep and insensibility produced by artificial means, the brain is probably deprived of blood rather than congested.*" How Dr. Richardson could reconcile this mistake as

of "*minor importance*," as to what I had published in 1842, which *recent research* had proved to be the truth, is, to my mind, quite inconceivable to imagine. Had Dr. Richardson made the same discovery, it would have been heralded to the world as of *major importance*" in all the medical journals.

By constantly writing for four months, I at last got the following reply :—

" 12, Hinde Street; October 29th, 1870.

My Dear Dr. Collyer,

I am so sure that what I have done is the best I could do, I really cannot meddle with it. It would be a case of meddle and a muddle, and would *do you harm*, not good. As the matter stands, the basis of the argument is sound and steady.

Always yours truly,

B. W. RICHARDSON.

I am so dreadfully obtuse, so dull of comprehension, as not to appreciate how the correction of the *muddle* could do me harm, and not do me good; I was forced to laugh outright at the patronizing self-sufficient style. It is the most strange logic, that to give me credit for having made a most important physiological discovery as to the actual condition of the brain during the Anæsthetic state some thirty years in advance of what "*recent research*" has confirmed to be correct, "would do me harm, not good." Perhaps Dr. Richardson will make application of the same mode of reasoning to his own discovery, particularly to the much-vaunted bi-chloride of mythelene, which was to have put in the shade every other Anæsthetic, which caused him to be so jealous of rivalry as to publish the following extraordinary statement with regard to the use of nitrous oxide:—"All the gases are faulty, because being gases, they are practically unmanageable for ordinary application. Nitrous oxide gas, moreover, although it produces insensibility, causes at the same time darkening of the arterial blood, painful rapid breathing, a countenance terrible to behold, and imminent approach to death."

There never was language more exaggerated than this used in reference to the actions of nitrous oxide gas; the physiological action of nitrous oxide, when inhaled, is so entirely in opposition to the above. I have probably had as much experience in the administration of the nitrous oxide gas as the generality of physicians. The cause of the livid countenance is from the over-action of the nerve fibrila, which accompanies the capillary vessels closing them therefore the accumulation of the dark nervous blood. I had made experiments with nitrous oxide gas as early as 1838—*Vide London Critic*, April, 1847, and found that, by microscopic examination, the globules were not disintegrated. It is the safest of the Anæsthetics, which is not the case with the poisonous chlorine compounds. No one, on witnessing the livid lips and blue tint of the countenance of a country girl on a cold

winter's morning, would exclaim that it was "a countenance terrible to behold;" yet this is one of the best indications of partial nervous congestion. Here we have the tonic or stimulant of cold acting on the nerve fibrilla which accompany the capillaries, contracting them and excluding the arterial blood—one of the best securities that the vital organs are not being compromised. This lividity of countenance is simply an over-tonic effect of cold. Look at the reverse, the antitheses, *the blush* and the suffusion of blood to the surface, when an opposite condition is produced. Is not this caused by the relaxation of the nervous influence over the capillaries, causing them to expand and allow the red globules to circulate?

How a physiologist of Dr. Richardson's reputation should have been guilty of such curious mistakes with regard to the action of nitrous oxide gas, is only to be accounted for on the supposition that his was an atmosphere charged by bi chloride mythelene, which is nothing more or less than another condition of chloroform, both of which I have and continue to denounce, as amongst the most dangerous Anaesthetics that can be employed. If there is not "a countenance terrible to behold," or special darkening of the arterial blood, does there not exist a blanching of the surface, a ghastly pallor, a nervous tremour and too often paralysis of the heart and death?"

Not having received a satisfactory answer as to my request to have the mistake corrected, I wrote again and again, and at last received the following—

12, Hinde-street, December 26th 1870.

Dear Dr. Collyer,

Since receiving your last, I have recast all I have written on the history of Anaesthesia, and my sincere and unchanged conviction is, that to add anything would be to spoil all that I have done. I should accept it as one of the worst things to be moved from the present good position in which you now stand; you must permit me to say, that I cannot write a word further for publication than I have written.

Yours truly,

B. W. RICHARDSON.

This final refusal to correct the error he had himself committed, of course terminated all further correspondence on the subject.

Dr. Richardson having put me in the wrong on a most important question, whether by misadventure or otherwise it matters not, it was his bounden duty, the moment his attention was called to the fact, to have corrected the error. There is but one code, in all parts of the world for a gentleman to follow, namely, to be guided by honour and justice in all his relations of life, so far as it in his power lies so to act. Here we find a person writing for one of the leading medical periodicals in a rollicking, jaunty, careless manner, on a subject on which he is supposed to be the standard authority. He makes a serious error, *which he admits privately*, in regard to the *original* discoverer! yet, when called upon to correct the error, he persistently

refuses to do so, and says it is of "*minor importance*." The other portions of "*History of the Anæsthetic Discovery*," as regards myself, are written in such a jocose comic manner that any one who reads them could never imagine that I had received a regular medical education. It was quite true that I was dealing with an entirely new subject—I had no experience to guide me in the paths of research. It is very well for Dr. Richardson to be funny at my expense, after he has had some thirty years of the world's experience in the administration of Anæsthetics.

I never would have mentioned Dr. Richardson's name in connection with this publication, had not every other means failed for the past seven years to get a public acknowledgment of the error he committed in the *Lancet* of 11th June, 1870.

Having fought single-handed the great battle of Anæsthesia for nearly six years against all the prejudices, bigotry, superstition and ignorance of the age, receiving nothing but abuse and ridicule as my reward, it is not asking too much, now that the victory has been so signally achieved by the adoption of Anæsthetics in surgical operations, that I should have the full and entire credit which to myself belongs, namely, that of having caused the subject to be brought prominently before the public, and ultimately, as a consequence, the alleviation of human suffering, and the entire abolition of pain during surgical operations.

I now make a most solemn declaration, that had it not been for my public lectures, experiments and operations with Anæsthetic agents in 1842 and 1843, it is not even probable that the idea would have ever been suggested of the necessity of an Anæsthetic state to Horace Wells, in December 1844, at G. Q. Calton's exhibition of nitrous oxide gas, or by W. T. G. Morton, in September, 1846, as they both had attended my lectures in Boston and elsewhere. The mere substitution of one substance for another in the production of the Anæsthetic state, after THE GREAT PRINCIPLE had been published by me in May, 1843, does not constitute DISCOVERY, nor does it demand any amount of research.

The fact having been established, that the inhalation of narcotic and stimulating vapours did produce a state of unconscious insensibility rendered it most easy to prosecute the investigation with other agents not used by myself.

It is most difficult for me to explain the motive which should have caused the refusal to rectify so important an error, involving as it did the whole philosophy of the subject under discussion. I am now, after seven years, convinced that Dr. Richardson was not competent to have written "*the History of Anæsthesia*" from a want of knowledge of the facts, as they occurred in 1842 and 1843.

Dr. Richardson says in *The Lancet*—"The lectures and works of Dr. Collyer were of a kind, we must candidly say, not calculated to

arrest seriously the attention of the profession at the time his experiments, in some of which he resorted to mesmerism, and in others to the administration to the fumes of alcohol, in which poppy seed and coriander seed had been steeped, were popular rather than scientific in their character. But there is this principle pervading them all, a principle he continually promulgated in Boston, Philadelphia, Liverpool, and other places, that the so called mesmeric influence was identical in action with that produced by the inhalation of narcotic and stimulating vapours. He theorized, however, on the condition of brain produced by those agencies, and argued that mesmerism brought on a CONGESTIVE CONDITION OF BRAIN in those susceptible to its influences that during this CONGESTIVE STATE, the brain did not receive impression from the rest of the body, but was, so to speak, cut off from connection with the body for the time, and that under the influences of NARCOTIC AND STIMULATING VAPOURS the same CONGESTIVE condition was obtained. In 1842 he claims to have administered the fumes of alcohol to Miss Allen, of Philadelphia, when a tooth was extracted without pain."

I am not responsible for the awkwardness of the construction of the foregoing description of my lectures and experiments. It will be seen that Dr. Richardson in this single paragraph mentions the words "*Congestive state of brain*" no less than three times; he did not then consider it of "minor importance." The whole description is foreign to my mode of procedure in 1842 and 1843; nor did I reason in the manner stated.

After my published lectures and public experiments of 1842 and 1843 there was no difficulty in the way. After Columbus had discovered the continent of America there was no great difficulty in the discovery of individual parts of the same continent. There cannot be a question that the axiom and the truth of the great Hippocrates—" *Divinum est opus sedere dolorum*" has been acted on from the earliest ages.

Every one has recognized the great benefit arising from *the abolition* of pain, except certain crotchety persons who in all ages oppose everything, for the mere sake of opposition, or to cover their own ignorance resort to ridicule and abuse. The *mandrake*, or *mandragora*, *canabis Indica*, or Indian hemp, and various preparations of opium, have been taken through the medium of the stomach, in order to produce a state of insensibility during a surgical operation.

The only really authentic record of the recommendation of inhalation to diminish sensibility was made by that illustrious chemist and philosopher, Sir Humphrey Davy. On the 11th April, 1799, he inhaled the nitrous oxide gas to assuage the pain incidental to cutting a wisdom tooth. He used these prophetic words, which were published:—"As nitrous oxide gas, in its extensive operation, appears capable of destroying physical pain, it may probably be used with advantage during surgical operations, in which no great effusion of blood takes place."

Had Sir Humphrey Davy followed up the idea, so wonderfully true, as experience has demonstrated, had he gone into the physiology of its action, or had he produced unconsciousness, nothing would have been left for future discovery. No one could or would dispute that he was not the discoverer of modern Anæsthesia.

When Dr. Richardson used these words in "The Lancet"—"The lectures and works of Dr. Collyer were of a kind, we must candidly say, not to arrest the attention of the profession at the time"—did the wonderful experiment of Sir Humphrey Davy, over forty-four years prior to mine of 1842 and 1843, arrest the attention of the profession? Was their attention arrested by the experiment made by Horace Wells, before Dr. Warren's medical class, in January, 1845, or were they excited to making investigations to abolish pain during a surgical operation? Did my public lectures and experiments from 1840 to 1846, produce any other result than ridicule, and the most consummate arrogant abuse? But Dr. Richardson is entirely mistaken; my lectures were of a character to arrest the attention of the medical profession.

I extract two notices from journals: "Cheltenham Examiner," February 1844—"Dr. Collyer's lecture at the Assembly Rooms, on Thursday evening, differed essentially from that delivered at the Literary Institution, which was purely of a scientific and philosopher character, for the most part discussing the subject in a philosophical spirit; whereas that of Thursday was of a popular kind, not entering into the rationale of the question." "Liverpool Standard," October 14, 1843—"From want of space, we are prevented from giving a detailed account of Dr. Collyer's philosophical lecture."

I could add a great many more extracts from leading journals of the United States, in 1842 and 1843, that my lectures were philosophic and scientific. Why should they not be of that character? I received a thorough medical education in the schools of London, Paris, and America; had received prizes of merit. Any one on reading Dr. Richardson's account would imagine that I was an ignorant adventurer, who knew not what he was about, and was merely bent on making money, which was the furthest from my thoughts. Had I not performed surgical operations by mesmerism and the inhalation of narcotic and stimulating vapours, during the years 1842 and 1843—had I not made the abolition of pain during a surgical operation the principal topic, the leading theme, and the burden of my purpose, to arrest the attention of the profession, then there might be some reason in this unfair and unjust criticism.

The following is from my work published May, 1843, p. 36:—"I had prepared by the magician's direction some frankincense and coriander seeds and a chafing-dish, with some live coals in it. These were now brought into the room, together with the boy who was to be employed; he had been called in by my desire from amongst other boys in the street, returning from a manufactory, and was about eight or nine years of age.

"In reply to my inquiry respecting the person who could see in the magic mirror of ink, the magician said, they were—a boy not arrived at puberty, a virgin, a black female slave, and a pregnant woman.

"The chafing dish was placed before him and the boy; the latter was placed on a scat. The magician now addressed my servant to put some frankincense and coriander seeds into the chafing dish; then taking hold of the boy's right hand, he drew in the palm of it a magic square: in the centre he poured a little ink and desired the boy to look into it and tell him if he could see his face reflected in it; the boy replied that he saw his face clearly; the magician, holding the boy's hand all the while, told him to look silently into the ink, and not to raise his head. He then took one of the strips of paper inscribed with the forms of invocation, and dropped it into the chafing dish upon the burning coals and perfumes, which had ALREADY FILLED THE ROOM WITH THEIR SMOKE; and as he did this he commenced indistinct mutterings of words, which he continued during the whole process, &c., &c.

"While this was going on, the magician put the second and third of the small strips of paper, upon which the forms of invocation were written, into the chafing dish, fresh frankincense and coriander seeds being repeatedly added, UNTIL THE FUMES BECAME PAINFUL TO THE EYES.

"The object of placing the boy near the window was evidently for him to inhale the fumes. It being the only window open, the vapours would naturally be directed to that point."

A pure seer, to wit, a maiden's or a boy's eye was required. These are constitutionally more susceptible to the influence of the "Narcotic and Stimulating Vapours." I find that, with very little trouble, they are subdued by the nervous agency, whereas stronger persons, as men and old women, are very hard so be affected.

The only difference made by me was in the addition of poppy (for which I substituted the bowl of molasses), and the vapour from alcohol, with which was sometimes mixed ether. In many places I was forced to give my lectures without the experiments, from the fact of the fumes being painful to the audience.

The reader must take all the extracts in connection with the surgical operations constantly performed by me in public, during the Anæsthetic state induced by mesmerism.

The following short report of a lecture, delivered in Providence, Rhode Island, United States, is from the "Providence Chronicle," March 17, 1843:—The lecture of Dr. Collyer at Westminster Hall, last evening, was on the Philosophy of the Nervous Force. Man must be called an electrical machine—indeed, he was most truly so; he was governed by its laws, and exhibited most of the phenomena connected with that fluid. Magnetic sleep was a congestion of the brain produced by the transmission of the nervous force from one person to another. To illustrate this, in brain fever, where there is an over-action of that

part of the body, we find the patient has cold hands and feet ; there is a withdrawal from those parts of the nervous force to supply this extra action of the brain. He noticed the beautiful action of the lungs in this connection. Monotony would produce sleep on the most irritable when all opiates fail ; waking was the only result of the constant stimulus of the variety which meet our gaze. Printers often experienced this in a blurred sheet, or a double impression on the same sheet. By looking at any object for a long time a dimness would come over the eyes, languor, &c., in fact, all the approaching attributes of sleep or a congestion of the brain, as in common sleep or the mesmeric sleep would be produced. He further alluded to the action of the nervous force as connected with the brain. Men in strife received bruises and wounds, and are not sensible of the fact at the time, in consequence of the great excitement of the brain, producing a deadness of the outer surface, or, in other words, a withdrawal of the nervous force to supply the increased action of the central portions of the brain. Any excitement would produce the same result, as we see in the Hindoo widow—in the Indian of the forest, who seems at times wholly indifferent to pain, and will bear the most excruciating torture without a murmur. In cases of religious excitement the same action is made manifest. Persons under this religious phrenzy do what, under ordinary circumstances they could not do, until at length the brain becomes exhausted, and the subject falls into a swoon, in which they lay for hours and even days. By exciting a person's vanity we have the same result ; SURGICAL OPERATIONS have been performed, where the patient has borne the pain with the greatest fortitude when his feelings have been appealed to. A Roman general once boasted of the great power of the Romans to bear pain, and plunged his arm into the fire until it dropped off. In a condition where there is an equilibrium of the system, the sting of a musquito will almost drive one mad. Dr. Collyer gave the statement of a celebrated French surgeon (Baron Larrey), who accompanied Napoleon in all his campaigns, to substantiate his position. This surgeon stated that operations were always better borne by the soldiers if performed immediately after an engagement, while the excitement was on, than if performed at a later period.

Again, "Boston Mail" June, 10, 1842 :—"The power to produce this congestive state of the nervous system is not confined to the nervo-vital fluid of a second person. The same state of things may be brought about by mental excitement accompanied by muscular action ; THE INHALING OF NARCOTIC AND STIMULATING VAPOURS. I performed a variety of experiments in connection with inhalation—demonstrating its power to produce congestion of the brain. I have also, at pages 26 and 27, given the Delphic oracle as an example, in these words :—A goatherd fed his flocks on the acclivity of Mount Parnassus. As the animals wandered here and there in pursuit of food, they happened to approach a deep and long

chasm in the rock. From this chasm a vapour issued, and the goats had no sooner inhaled a portion of the vapour than they began to play and frisk about with singular agility. The goatherd observing this, and curious to discover the cause, held his head over the chasm; in a short time the fumes having ascended to his brain, he threw himself into a variety of strange attitudes, and uttered words which were supposed to have a prophetic meaning. A temple was erected on the spot, and dedicated to Apollo. The particular apartment of the oracle was *immediately* over the chasm from which the vapours issued. A priestess delivered the responses,—she sat upon a tripod or three-legged stool, perforated with holes over the seat of the vapours. THE CONDITION OF THE priestess WAS IDENTICAL WITH THAT of the mesmerised person.

Though I performed a great many minor operations during a condition induced by the inhaling of the stimulating vapours, I was at that time prejudiced in favour of that induced by the nervo-vital fluid from a second person in the mesmeric state; during which condition I had seen a great many capital operations performed without pain to the patient.

The only difference between my experiments and those mentioned by Lane in his admirable work on Egypt is, that in my case, the boy's brain was rendered sentient to the mental image by the nervous agency from a second person; whereas the boys used by the Egyptian magi were caused to inhale narcotic fumes, PRODUCING IN BOTH INSTANCES THE IDENTICAL STATE OF BRAIN."

When it is borne in mind that all these experiments, lectures, and surgical operations by mesmerism, and the inhalation of narcotic and stimulating vapours, were made years prior to the date claimed by Horace Wells, December, 1844, and T. W. G. Morton, September, 1846, I cannot understand how my claim to priority could remain the question of a doubt. Dr. Richardson says—"We have no doubt, had Dr. Collyer given up the mesmeric idea and proceeded systematically with the plan of MAKING THE BODY INSENSIBLE by inhaling the vapour of alcohol, he would have no one to DISPUTE WITH HIM IN PRIORITY."

Since Dr. Richardson admits that the body was rendered insensible in 1842 and 1843, how is it possible to raise the question of priority, who are the persons who ante-date this period? It cannot be Wells or Morton, as their experiments were respectively in December, 1844, and September, 1846.

As I intend republishing, in the form of an appendix to this volume, the "History of Anæsthesia" and my original reply written immediately after I had exhausted every means to induce a correction of the mistake made; besides, the whole tone of the article, when referring to myself is so undignified and unworthy of the subject, and so contrary to the facts as they occurred.

In the summer of 1846 I returned to Europe and visited the Island of Jersey, where I practised my profession as a physician, and occa-

sionally gave public lectures. In one of these, December 10th, 1846 I gave a *resumé* of the Anæsthetic discovery. This was SIX DAYS prior to the arrival of the Cunard steamer *Acadia*, which brought the news of the *alleged* discovery of Wm. T. G. Morton, of September 30th, 1846. The following attestation was voluntarily given me:—

St. Heliers, Jersey, January 2nd, 1847.

We, the undersigned, were present at a lecture delivered by Dr. Collyer on the evening of December 10th, in this town. We distinctly heard him state, that he had frequently, by the inhalation of narcotic and stimulating vapours, brought about a state of unconsciousness like that produced by the mesmeric passages, and that during that state all kinds of surgical operations could be performed without pain to the patient.

(Signed)

A. J. LE CRAS.

A. J. HOWARD.

G. G. BOWRING.

G. G. IRWIN.

A. LE BAS.

FRED. M. YOUNG.

B. THOMPSON.

A. W. ALDERSON.

J. DESLANDES.

H. ALDERSON.

S. THOMPSON.

HERBERT A. GRAY.

H. THOMPSON.

J. DE LA TASTE.

COL. J. C. DAVIDSON.

J. H. FEROUSSON.

M. J. PRESHAW, *Surgeon*.

M. W. HOLLOWAY."

I also published in the "Jersey Times," London "Morning Chronicle," and London "Medical Times" the following:—

"Monopoly is opposed to the spirit of the age, more particularly with a subject the application of which must tend to the alleviation of much human suffering. As I can without doubt prove that, prior to the arrival of the *Acadia* steamer in Liverpool on the 16th of December last, at a public lecture on the 10th of the same month, I did declare that I had often times produced unconsciousness by the inhalation of narcotic and stimulating vapours, so that surgical operations might be performed without pain to the patient during that condition,—I urge this claim now in consequence of AN ADVERTISEMENT THAT THE USE OF INHALATION FOR SURGICAL OPERATIONS WAS BEING PATENTED. This is indeed most preposterous! I, as the rightful claimant, now GIVE IT cheerfully and freely to all who desire to use it. In the year 1842 I tried the experiment on more than twenty persons; in fine, the unconscious state lasted from half an hour to two hours,* whereas the recent experiments in America do not produce unconsciousness for a longer period than two to five minutes. I would not have it supposed that mesmerism is in any degree interfered with in consequence of the production of unconsciousness by inhalation. In the list of nervous diseases, neuralgia, paralysis, headaches, epilepsy, palsy, etc., mes-

*That is, I could not restore the patient to a perfect state of consciousness in some cases under two hours; in one instance, it was with the greatest difficulty that I recovered him from the nervous congestive state, and I was fearful of a fatal issue.

merism must be resorted to. Moreover, the whole credit of inhalation "is due to mesmerism," and the state induced is, in every way, a similar one! In the year 1843 I published a work simultaneously in Philadelphia, New York, and Boston, wherein at pages 26, 27 and 28, I distinctly and unequivocally declare that unconsciousness can produced by the inhalation of narcotic and stimulating vapours.

More than a thousand copies were sold, and my experiments by inhalation were the topic of conversation from one end of the United States to the other. There was hardly an editor who had not a joke on the "bowl of molasses experiments" as it was called at the time. I have fortunately several copies with me. Dr. Elliotson, in the third number of the "Zoist" refers to it.

I know then you will render me every facility of vindicating that which is most dear to every man, "REPUTATION," and having produced a condition, whose application must tend to the alleviation of much human suffering.

I am, your respectfully,

January 2nd, 1847.

ROBT. H. COLLYER, M.D.

The reader may judge of my astonishment and of my feelings of mortification when I saw that Morton and Jackson had taken out a patent for the very identical discovery I had made, I might say in 1839, for it was then I reduced the dislocated hip of the negro "Bob," who had become unconsciously insensible from the inhalation of alcoholic fumes. I who had devoted so many years in the advocacy of the cherished object of my life—the abolition of pain during surgical operations—to have it thus filched from me by an artful piece of strategy, was so violent a shock, that for the moment I was content with the publication of the truth. I really had not until then appreciated to its full extent the estimation which the world would have placed in my discovery. Had it not been for the patent business, the discovery would have remained unheeded, scoffed and ridiculed by the profession. I had become accustomed and familiar with this public abuse in the advocacy of the necessity of resorting to means to allay the torture and dread of a surgical operation, when I found in December, 1846, the distinguished surgeon, Mr. Robert Liston, had amputated a leg at the thigh without the consciousness of the patient, also that Dr. Warren, of Boston had, on the 16th of October, removed a portion of the lower jaw painlessly.

I was most intimate with Mr. Liston, as I had attended a full course of clinical lectures and hospital practice during the year 1844, at the North London Hospital.

I cannot find words to describe my feelings at having been so ruthlessly wrested of my untiring labour and investigations, after I had fought single-handed the great battle of the necessity of alleviating pain

during surgical operations. I had suffered the contumely, the scoffs and ridicule of a heartless, cold, unsympathizing world. I therefore determined resolutely to wait my time, which alone sets all things even. It is time alone which vindicates the truth. I found that in 1847 it was utterly impossible to turn the tide of public opinion. The names of Drs Jackson and Morton were heralded as the discoverers of the great principle that the inhalation of narcotic and stimulating vapours produced a state of unconscious insensibility. After publishing my claim as the original discoverer in all the journals and periodicals at my command, I returned to the United States in the autumn of 1847. Some short time after I met by accident Horace Wells, in a saloon at the corner of Chamber Street and Broadway. This meeting can never be obliterated from my memory. We conversed for over an hour on the topic of Anæsthetic Discovery. I found poor Wells to be devoid of all scientific information ; he was in fact, so far as physiological subjects were concerned, an uneducated man. During the conversation he became much excited in speaking of Drs. Jackson and Morton, whom he denounced as having obtained all their information from himself in January, 1845. I called his attention to my public lectures and experiments of 1842 and 1843, particularly to the fact of my having stated in the pamphlet of May, 1843, that the inhalation of all stimulating and narcotic vapours produced an insensible or nervous congestive state of brain. He replied, "I have attended your lectures and read your pamphlet." We parted good friends, so far as that no harsh feelings were expressed either by himself or myself with regard to each other.

What was my surprise, when a short time after, at seeing in the newspapers that Horace Wells was committed to the Tombs—the New York criminal prison—for throwing sulphuric acid on the passers by in Broadway. Poor fellow, in a fit of desperation, he committed suicide in prison by dividing the femoral artery ; this was on the 24th of January, 1848. No one can deprive him of the merit of having submitted to the inhalation of the nitrous oxide gas in December, 1844, for the purpose of having a tooth extracted, which operation was performed by Dr. Riggs, of Hartford.

I published these facts in my History of Anæsthetics in 1868.

I return to the text propounded by Dr. Benjamin W. Richardson:—"We have no doubt had Dr. Collyer given up the mesmeric idea and proceeded systematically with his plan of making the body *INSENSIBLE* by inhaling the vapours of alcohol he would have had *NO ONE TO DISPUTE WITH HIM IN PRIORITY.*"—*Lancet*, June 11, 1870.

Had Dr. Richardson witnessed the operation on the child 22 months old, under the surgeon's knife for thirty-five minutes, in the removal of fungus of the eye, without the infant uttering a cry or groan as I had done, when Dr. Rich cut out the entire eye, which was involved in the large tumour, he never would have written as he did as to my giving up the mesmeric idea ; besides, I mesmerised hundreds of per-

sons to a state of unconscious insensibility or nervous state, on whom teeth and other minor operations were performed PAINLESSLY.—Vide “Critic,” April 10, 1847.

No one can read my lecture, imperfectly reported as it was, in the “Providence Evening Chronicle” of March 17, 1843, together with the other remnants of my publications which have escaped the ravages of fire and other accidents, without coming to the conviction that it was animal magnetism or mesmerism which led to the discovery, and was the origin of the Anæsthetic method of rendering surgical operations painless.

Dr. Charles Ozanam, of Paris, says—“If Animal Magnetism was regular in its effects, applicable to everyone, without doubt it furnishes to the surgical profession the most complete realization of the Anæsthetic state. We can put a person to sleep and leave him in that state for hours, even days, without his suffering, and without the least danger to him. All the functions of life are carried on as in the normal state,—nothing is interfered with—BUT THE LOSS OF SENSIBILITY.”

It was the consciousness of this truth that caused me to hesitate in the employment of narcotic and stimulating vapours, until I had convinced myself that it was impossible to mesmerise the majority of persons. I think when the following surgical operations, performed during the mesmeric state, are read, the reader will discover why I did not abandon the mesmeric idea.—“Dr. Esdaile, in Calcutta was prosecuting a series of experiments, which for boldness and originality are not surpassed in the history of surgery; these surgical operations attracted so much attention, that the Deputy-Governor of Bengal appointed a committee composed of Dr. Atkinson, Inspector-General of Hospitals, Dr. O’Shaughnessy, Dr. Stewart, Presidency Surgeon of Bengal, including many other men of eminence, who reported on the surgical operations performed under their own observation. Some of the results were indefinite, whilst others were most successful.

During the nervous congestive state induced, one man, Sept. 17th, 1846, had a thigh amputated by the double flap operation, seven arteries being secured, lasting fifteen minutes. During the whole time not the slightest movement or manifestation of sensibility was exhibited. In another case—hypertrophy of the scrotum—the tumour, weighing 10½lbs., was removed without pain. In a third case, the stupor induced by Dr. Esdaile was so profound that Dr. Stewart believed the patient had drugged himself with Indian hemp, “bang;” at the request of the committee he was awakened, when it was found the suspicion was unfounded. In a fourth case, Dr. Esdaile removed from a Hindoo, twenty-seven years of age, a scrotal tumour, which measured seven feet in circumference and two feet round its neck; the tumour was as large as the body of the man, half an hour after it was removed it was found to weigh 103lbs. This wonderful operation was performed without the least evidence of pain or consciousness; the time occupied in the

operation was six minutes, including the application of ligatures to the spermatic and other arteries. It must be remembered that this Anæsthetic state was produced without inhalation, but by producing a nervous congestive state of the brain by an extra supply of nervous fluid from a second person."

Even at this period of time, there were many persons who were thoroughly convinced of the truth of the mesmeric process. I subjoin the following from one of England's most distinguished authors :—

Tremont House, Boston ; January 26th, 1842.

My Dear Sir,

If I can possibly arrange it. I shall be much interested in seeing your cases when you come to Boston. With regard to my opinion on the subject of mesmerism, I have no hesitation in saying that I have closely watched Dr. Elliotson's experiments from the first ; that he is one of my most intimate friends ; that I have the utmost reliance on his honour, character, and ability, and would trust my life in his hands at any time ; and that, after what I have seen with my own eyes and observed with my own senses, I should be untrue, both to him and myself if I shrunk for a moment from saying that I am a true believer, and that I became so against all my pre-conceived opinions and impressions.

Faithfully yours,

CHARLES DICKENS.

To Dr. Collyer, Bedford, Massachusetts.

It is the most simple of all mental processes to give advice, and reason after events have taken place as to what one ought to have done or not to have done. This oracular wisdom, after thirty years of experience as to the mode of investigating, or the manner of procedure, is the bane of many men. How could the original pioneer, with no kind of experience to guide him, treading as he was on entirely new ground, exploring a new country in science,—one which was surrounded with all sorts of rocks and quicksands—must he not be governed with some degree of caution ? One such mischance, as now are nearly every week published, where death occurs from chloroform or bi-chloride of mythelene, would have consigned the original pioneer to a criminal prison for life, or perhaps to suspended animation—a state of asphyxia which is supposed to end one's existence. Still we do find men whose reputation has been built up in attempting to become original discoverers, inventing new Anæsthetics. No one despises more than myself this censorious, uncharitable, egotistic denunciation, with regard to a subject which has undoubtedly conferred the greatest boon to suffering humanity during the most trying moments of life, abolishing the torture of the surgeon's knife ! Surely one would suppose, that the means employed to arrive at so inestimable a benefit should not be too severely criticised. The accomplishment of the object should act as a mantle, which ought to cover a multitude of what may now, after thirty three years of experience, be considered sins of omission or commission.

The original investigator is like a ship at sea, without a rudder, or compass, or chart to guide the navigator on his course. He will, in all probability, go out of his way, make much needless travel in latitudes and longitudes out of the direct path of the haven he desires to reach. Still, when the journey has been completed under such exceptional conditions, he should be welcomed and congratulated on the accomplishment of so difficult a voyage.

Let any one great discovery be exemplified, which at its birth has not been encumbered with useless and superfluous conditions, which only practical experience renders of no purpose or value. Still Dr. Richardson's "History of the Anæsthetic Discovery," "Lancet," June 11, 1870, says:—"Let us close the controversy. Enthusiastic Collyer, wandering through the States with his mesmerism and his narcotic fumes; his anecdotes of the Pythoness, of the Delphic Oracle, of the Egyptian Magi: of his negro "Bob," undergoing operations, insensible from the vapour of rum; of himself, insensible from the inhalation of ether at the laboratory of the University of London, and with his theories of mesmeric sleep in connection with sleep (coma) from narcotic and stimulating vapours and hybernation. Enthusiastic Collyer, we say, is, to our minds, THE TRUE PIONEER AFTER ALL—THE MAN WHO RAN FIRST, and beckoned and called, however oddly, others to follow, with so much effect that a few followed at once, and many afterwards."

The crowning achievement of Dr. Richardson's history of myself, consists of the following exquisite piece of playful irony, to wit:—"Dr. Collyer represents a constantly repeated figure in the history of human effort. He is Prince Rupert to the life,—not to mention other men of similar impulsive genius in other ages and in different fields of labour." If this quasi-compliment does not out-Herod-Herod, I do not know the value of the English language. Had the rest of Dr. Richardson's article been of a serious philosophical character, and not an indulgence of whimsical, comical, eccentric humour at my expense, I then would have appreciated being compared to such an illustrious person as Prince Rupert. Most unfortunately, I am so dull, or so stupidly unappreciative, as not to see the joke of poking fun at one whom Dr. Richardson declares to be "the man who ran first, to be the original pioneer" in the advocacy of the necessity of alleviating human suffering during the otherwise torture of surgical operations. Surely, this giving vent to a sense of the humorous, when treating on such a topic is out of season. *Vide* Appendix, answer to the "Lancet's" "History of the Anæsthetic Discovery."

If it contained one word of truth as regards myself I could appreciate it at its worth only, namely—an odd and eccentric style of composition. Dr. Richardson evidently here refers to my lectures and experiments of 1842 and 1843.

I must appeal to the discrimination of the public, whose verdict as a

rule is given without fear or favour, on the broad principles of truth and justice. My claim is—did I, or did I not, publish in May, 1843, that the INHALATION OF ALL AND EVERY NARCOTIC AND STIMULATING VAPOUR PRODUCED AN ANÆSTHETIC OR CONGESTIVE STATE? As the publication is in existence, and was copyrighted at the time, no one can dispute my claim to being the true and first discoverer of the principle obtained by experiment, that the inhalation of stimulating vapours produced a state of INSENSIBILITY.

In Boston (1842) I repeated the experiments of the Egyptian magicians, before audiences from 1,000 to 1,500 persons, producing all the conditions of the Anæsthetic state by the inhalation of these narcotic and stimulating vapours.

The constant and persistent object was the application of the Anæsthetic state to surgical operations, no matter how the unconscious or insensible state was induced. This fact is most important, in showing that I did not confine the surgical application of Anæsthetic to the so-called mesmeric state.

The "Liverpool Standard," October 17, 1843, says:—"To prove that mental hallucination could be induced by the operator, he took a young woman, only semi-mesmerised (walking state), and placed a jug in her hand, which she recognised to be a *pig* by a pass of his hands. She began to stroke it as a pet cat, which she declared was such; and the influence being removed, her own surprise at her mistake was pictured by a look and expression of shame before the large audience, which could not be feigned. Again her mind was influenced, and she saw a large fish at her side, from which she endeavoured to escape with every gesture of horror, until the influence was removed. A young man and young woman, both perfect strangers to Dr. Collyer, were placed in a rigid or cataleptic condition of the muscles (though otherwise perfectly awake). Dr. Collyer stated that he knew of TWO OPERATIONS having been performed in America during this state—viz., extirpation of CANCER FROM THE FOOT, and ADJUSTMENT OF A COMPOUND FRACTURE OF THE FOREARM. In the latter case a portion of bone was removed, in order to set the limb (generally a painful operation), and yet the patient was *insensible*."

I have offered a reward of 10,000 dollars to any one who would produce a published document prior to mine of 1843, namely:—"That the inhalation of narcotic and stimulating vapours produce an unconscious insensible state, Anæsthesia or Nervous Congestion." I have, at all times and occasions, challenged a refutation of this published fact of May, 1843, in Philadelphia.

In the London "Critic," No. 119, Vol. V., April 10, 1847, I published the following:—"In Louisiana, in 1839, I reduced a dislocation of the hip-joint of a man, who was rendered insensible by the inhalation of vapour arising from rum. It is a very common practice among the negroes to inhale these fumes, and thereby produce total unconscious-

ness. It must be taken into consideration that my experiments were not performed in a corner, but before the world, and in the very city where Drs. Jackson and Morton resided, and that I have explicitly demonstrated that whenever the brain was the seat of special action (pp. 32) the nervous force was robbed from all parts of the body in order to meet the increased demand of the brain. The lungs are the manufacturing organs of the system—they supply the wasted powers—their function being particularly in action during sleep; whenever any stimulating vapour is applied to them, their productive action is much increased. This is the case in the inhalation of ether, alcohol, protoxide of nitrogen, or any other stimulating vapour. In 1835 I was a student at the London University College. Dr. Turner, Professor of Chemistry, used to administer to those pupils of his class who chose to inhale it, the laughing or protoxide of nitrogen gas. On one occasion the gas gave out, and sulphuric ether was substituted. Mr. Belmain, Dr. Turner's assistant, will no doubt remember my having inhaled the ether, and how long I remained in the laboratory in an insensible state, and which will never be forgotten by me. Now is it likely that when engaged in the investigation of this subject in 1842 I purposely neglected the experience I had bought in 1835? In fine, I have shown clearly that Drs. Morton and Jackson got the idea from Dr. Wells, a gentleman I never heard of, but who must have heard of my experiments in connexion with inhalation, or, as they were facetiously called 'the bowl of molasses experiments;' for there was no editor in the United States who had not a joke at my expense, in connexion with my experiments.

"I remain, most respectfully yours,

"ROBERT H. COLLYER, M.D.

"St. Helier's, Jersey, March 26th, 1847."

It is here made evident that in March, 1847, I was aware of the anæsthetic properties of nitrous oxide gas. This fact is most important in reviewing the history of Horace Wells's experiments in the latter part of the same year, 1847.

Horace Wells to "Galignani's Messenger," February 18, 1847, causes the editor to say: "We regret that at a moment when the question of the value of the discovery, and the extent to which it may be safely carried, is under discussion in the Academy of Sciences, Mr. Wells has not made a communication to that body!!! The reason is obvious: he really knew nothing about the subject, nor had he ever heard of the inhalation of the vapour of sulphuric ether until Morton's experiments were published in "Galignani's Messenger."

In the biography of Horace Wells, written by Dr. P. W. Ellsworth, appended to the Honourable Truman Smith's "Modern Anæsthesia," published 1867, Hartford, Connecticut, it is stated that Horace Wells's visit to Europe in 1847 (which should have been December, 1846)

"was for the purpose of interesting Continental with English surgeons in his discovery." Had this been the case, he never would have chosen Paris, as he did not understand the French language; he rather would have selected London, where, without difficulty, he could have communicated his ideas. But had Mr. Wells been interested in the least degree in propagating the necessity of producing an anæsthetic state by nitrous oxide, or any other agent, so as to render the surgeon's knife painless, there was no necessity to have left his own country, the United States, for no better field exists in the world, where there is less prejudice to battle with, than in America.

The simple truth is, Mr. Wells's visit to Europe had not the most remote connection with the subject of producing an anæsthetic state. The proofs that this subject never entered his mind are incontestible. He remained in Paris for *over two months*, and never even mentioned the casual haphazard trials of December, 1844, and January, 1845, with nitrous oxide gas. He was occupied in Paris with his then business of dealing in pictures, nor would he have ever made himself known had it not been for the letters of Dr. Ellsworth, published in the "Boston Medical and Surgical Journal," of Dec. 16, 1846, and that of Dr. E. E. Marcy in the "New York Journal of Commerce," Dec. 30, 1846. These extraordinary *inventive* documents were republished in "Galignani's Messenger," Feb. 15, 1847. The burden or principal object of these letters was to claim for Horace Wells, as a resident of Hartford, Connecticut, the honour of the anæsthetic discovery; and in the same ratio as Wells was lauded, so were the claims of Mr. T. G. Morton, of Boston, depreciated. It was thus, at the earliest moment, that the rivalry was established between the cities of Boston and HARTFORD. The fact is most important to be constantly remembered, for it explains the ultra measures resorted to in vindicating the rival claims of the contending parties. On Wells ascertaining for the first time that he had been denominated a discoverer, in consequence of the trials with nitrous oxide in Dec. 1844, "*long since abandoned by him*," to use his own words to Morton, "as being of no practical value." He, with the assistance of Dr. Brewster, of Paris, concocted a letter, from the material furnished by the letters of Drs. Ellsworth and Marcy, which he published under his own signature in "Galignani's Messenger," Feb. 18, 1847. This letter must be carefully read; it is a tissue of the most reckless misrepresentations ever published. This letter, which has been so *carefully suppressed* by the Honourable Truman Smith, was brought to England by Horace Wells, together with those of Drs. Ellsworth and Marcy, and given to Dr. Henry Bennett, of 60, Grosvenor Street, London. These were republished in the "Lancet" of March 6th, 1847, with a letter from Dr. H. Bennett, which I now reproduce. (*Vide* Appendix.) It will be seen that Dr. H. Bennett had to explain Mr. Wells's unmeaning SILENCE. Thus he had left America for Europe before Drs. Jackson and

Morton asserted a right to the discovery, and it was some time after his (Wells's) arrival in Paris, that he heard of these gentlemen having, in the most unjustifiable manner, claimed a right to the discovery." It has been often said that a bad excuse is better than none. It is impossible to imagine a worse one than this adduced by Horace Wells.

It is certain that had the trials with nitrous oxide of December, 1844 and January, 1845, *not been entirely abandoned* "as of no practical value," he never would have remained silent, until after the successful result of Morton's experiments with ether in September, 1846. What connection could one have had with the other? Had Mr. Wells been convinced of the value of nitrous oxide in producing an anæsthetic state? How does this excuse accord with the letter he received from Morton, October 19th, 1846, wherein he (Morton) states that he had received **LETTERS PATENT** and that the severest operations can be performed without pain, when *the compound* had been inhaled. (*Vide* letters from Morton to Wells, and the reply, Appendix.)

It is remarkable that Mr. Wells should have forgotten in February 1847 the contents of the letter received by him from Morton, only a few months previously, and responded to by himself, particularly on so important a subject as the abolition of pain in surgical operations. It will be seen that the account given by Dr. G. Q. Colton is entirely ignored. Mr. Wells, himself says, that he was led to the discovery *in quite a different manner*—"I was led to believe that surgical operations might be performed without pain by the fact that an individual, when much excited from ordinary causes, may receive severe wounds without manifesting the least pain, as for instance, the man who is engaged in combat may have a limb severed from his body." *Vide* my lecture reported in the "Providence Evening Chronicle," March 17th, 1843.

Mr. Wells dates his trials in November 1844, instead of December, but this error is of minor importance, when the whole tenor of the letter is one which bears in its very face the evidence of being concocted, without the least regard to truth. The most flagrant and unjustifiable portion is that claiming the use of ether on some fifty patients! Now, if that had been the case, how is it that not a scrap of *contemporaneous* evidence is adduced; not a newspaper paragraph from Hartford can be brought forward in support of this assertion!!!

Mr. Wells promised most faithfully to send Dr. H. Bennett the necessary documents substantiating his claim, no such documents were ever sent, for the best of reasons, there were none to send. (*Vide* Dr. Bennett's letter, Appendix. On Mr Wells's return to the United States he puts himself into immediate communication with his aiders and abettors, Drs. Ellsworth and Marcy, who scheme and contrive all sorts of devices to injure and destroy, if possible, the claims of Wm. T. G. Morton, of Boston. Failing in this attempt, they thought of again resorting to the use of nitrous oxide gas, and we have a case recorded

by the voracious Dr. E. E. Marcy of an operation said to have been performed August 1847, which, perhaps, is of the same character as the imaginative case recorded by this gentleman, *with Sulphuric Ether*, 1844 or 1845, which, Dr. James Y. Simpson remarks, "*was so sterile* that the employment of ether did not spread from that point." If this is not the very essence of quiet satire, I do not know what it is. Of course, this case had never any other existence than in the brain of Dr. E. E. Marcy. (*Vide* letter to Dr. Benjamin W. Richardson, Appendix.) Wells, in autumn of 1847, visited New York for the purpose of inducing the surgeons to employ nitrous oxide, but from want of knowledge that *unconsciousness*, or a state of NARCOSIS, could be produced; he again entirely failed at the hospitals to produce definite results in any way equal to that effected by ether, which was then generally adopted.

Horace Wells was, unfortunately for himself, a confirmed alcoholic; it was during a state of inebriation that he amused himself with vitriolic acid on fashionable ladies promenading Broadway, for which offence he was committed to "the Tombs," the criminal prison of New York, where on the 24th of January, 1848, he committed suicide by dividing the left femoral artery.

Having casually met Horace Wells in New York, in the fall of the year 1847, in an oyster saloon, we had a long conversation on the various topics connected with the subject of anæsthesia. I am therefore capable of judging from his own admission as to the relative merits of the case. He admitted that he was induced to state, in "Galignani's Messenger," that he had used ether from the publications of Drs. Ellsworth and Marcy. He was a man of very ordinary ability, extremely sensitive, ignorant of physiology, and would have remained for ever unknown had it not been for the success attendant on the use of ether by WM. T. G. MORTON of BOSTON. In vindicating the position of Morton, I am only performing an act of duty, which the truth demands; no one besides myself has the same right, as both Wells and Morton derived all they knew from my public lectures and experiments delivered in Boston and other places in 1842 and 1843 on the subject of Anæsthesia. My publication in Philadelphia, May, 1843—that *the inhalation of narcotic and stimulating vapours produce a nervous congestive or anæsthetic state* cannot be interfered with, as it antedates both Wells and Morton. (*Vide* letter in Appendix, Sir James Y. Simpson.)

The controversy of the respective champions of Wells and Morton has been marked by a bitterness and vituperative animosity which even descended to the most disgraceful scurrility and defamation rarely equalled. The advocates of Wells have resorted to every imaginable mode of abuse in the contest against Mr. T. G. Morton; all the private acts of his life have been most unjustifiably raked up, magnified and paraded, so as to more effectually defame and blacken his

character. No one has more effectually contributed to this offensive procedure than the Honourable Truman Smith, who even goes so far as to detail with splenetic exultation the robbery committed by W. S. Tuckerman, who was treasurer to the Boston and Eastern Railway Company. It seems that this man purloined some 250,000 dollars, of which sum he loaned Morton 50,000 dollars. There is not the least evidence to show that Morton was cognizant of this robbery, yet the *Honourable* Truman Smith, of Hartford, gloats over the circumstance, and continually repeats it, insinuating that Morton was privy to this nefarious transaction. I stigmatise such conduct as unworthy of a gentleman, who vauntingly designates himself as the Honourable representative of the city of Hartford.

The feud becomes so acrimonious, that it virtually resolves itself into a contest

HARTFORD *versus* BOSTON,

and it is alone on this basis that an adequate explanation can be arrived at as to the cause of *such personalities* being resorted to, and of the production of countless certificates from all sources without regard to the decency demanded in the investigation of so important a subject as the History of Modern Anæsthesia.

Wells, having committed himself to the text of the Galignani letter, he had no alternative than resorting to the same *inventive* means of sustaining his claims. No one was more astonished than Wells himself, when in Paris, on reading the letters of Drs. Ellsworth and Marcy, of Hartford, published in "Galignani's Messenger," which claimed for that city the honour of the discovery, in opposition to that of Boston. These statements have now only to be read by the light of the present hour on the subject in order to create a surprise that men should have been found with such hardihood and temerity to make such reckless misrepresentations.

Of course, the *Honourable* Truman Smith has not republished or even alluded to this famous correspondence—it would be too fatal and damaging to his case. If the inhalation of nitrous oxide gas had produced any public impression, how is it that it was *abandoned* by Horace Wells; or that the Honourable gentleman does not adduce a single contemporaneous document with Mr. Wells's name? The whole truth is summed up in a few words. Mr. Wells attended an exhibition of the laughing gas by Mr., now Dr. G. Q. Colton, on the 10th of December, 1844. A person by the name of Samuel Cooley bruised his ankle without experiencing pain. This fact attracted Mr. Wells's notice, and he had a tooth extracted the following day. Mr. Wells was enthusiastically impressed with the subject, and proceeded to Boston, where—before Dr. Warren's class—he extracted a tooth from a person while under the influence of the nitrous oxide gas, but from some reason or other, pain was experienced, the result being *apparently* a failure; this so discouraged Wells that he subsequently *abandoned* all further

trials with the gas, and declared that "it had no practical value!" This is the language he used to Wm. T. G. Morton, in July, 1845, which is confirmed by the fact that he became a lecturer, according to Dr. Ellsworth's published statement, on ornithology. Dr. Ellsworth had occasion in June, 1845, to write to the Boston "Medical and Surgical Journal," wherein he says, "*the patients appear merry during the operation,*" but no mention is made of Horace Wells, or of ETHER. Yet the Honourable representative for Hartford, repeats at page 122, "Modern Anæsthesia" that Wells administered ETHER in 1844. It is conclusive evidence, that if Morton had known anything of the properties of ether, he never would have called on Dr. Charles T. Jackson. The fact of his having done so proves that he made no previous trials, as he stated, and also that ether was unknown to Wells, who was Morton's partner. (*Vide* letter to Sir James Y. Simpson, Appendix.)

Morton, no doubt, had heard of the use of ether from Mr. Spears, who had seen it given at the Lexington University; but he, Morton, was entirely ignorant of even "what kind of stuff it was," to use his own words to Jackson. He, moreover, as directed by Dr. Jackson, purchased the ether at Burnett's, with which he caused Frost to inhale the vapour on the 30th September, 1846, and extracted a tooth. These facts are established beyond all controversy. It is impossible to understand what becomes of the argument so constantly advanced by the Honourable Truman Smith, "that Morton borrowed all he knew with regard to anæsthesia from Wells."

The most extraordinary and improbable curious story related, as to a conversation, between Dr. Charles T. Jackson and Wm. T. G. Morton, as to acting on the imagination of a lady, is worthy of perusal and is explained. (*Vide* Appendix.)

As to the voluminous certificates obtained by the Honourable Truman Smith in 1865 and 1866, *as all dates are studiously suppressed*, or some 20 years after the period to which they testify, the explanation is furnished as to how they were obtained by the honourable representative in the Preface to "Modern Anæsthesia."

"It is astonishing with what facility, particularly in our large cities, men lend their names to the advancements of all sorts of claims, schemes, and projects, with no better guide than vague impressions as to the facts and with no other motive than a desire to oblige, or perhaps to get rid of some troublesome importunity. Hence it is no matter of surprise that Mr. T. G. Morton should have been enabled to produce to Congress whole tomes of certificates in furtherance of his designs on the United States Treasury, particularly in the CITY OF BOSTON, from which most of them have come, has long since LABOURED UNDER A SPECIES OF MANIA for certificating in his favour."

Here is the secret exposed—"HARTFORD *versus* BOSTON." It is impossible to read this without discovering the *animus* which instigates this *disinterested* and honourable representative; the charitableness and

loving kindness in thus alluding to the *City of Boston*, surpasses all understanding—that so astute a lawyer should have shown the cloven foot from beneath the lion's skin is, indeed, wonderful. But who would be prepared, after such a denunciation and manifestation of virtuous indignation, to suppose that such an *honourable man* could have resorted to the identical means, which he had so severely depreciated in others? It is even so, for we find that the multitude of certificates, which compose “*Modern Anæsthesia*” are of the self-same denomination (excepting the studious *suppression* of the dates) as those received by Morton. But with this *magical* difference, those from Boston are the emanations of people “labouring under a species of mania,” whilst those from Hartford are the genuine emanations of high-minded, disinterested persons, the expressions of quite another class of people, whose only object is an *abstract* love of truth!

The Honourable Truman Smith's comments on an article which appeared in the “*Cincinnati Gazette*” of December 28, 1866, in relation to a lecture delivered in that city by Wm. T. G. Morton, seems to have worked himself up to the acme of fulminating denunciation, for he says:—

“Ah, Doctor, then, it seems, that you not only applauded the speeches of honourable members, but you *loaned money when no return was to be asked*. Who to? Could it have been to anybody else than the members. We begin by getting a little inkling of the disposition which you made of the 50,000 dols. which you had from Tuckerman, and why not explain to the boys of Cincinnati all about that unhappy conjunction with Dr. Chas. T. Jackson in making the discovery? Besides, you failed in Boston, and had to resort to New York in order to consummate the parturition of the idea with which it seems you were big. Alas! for the ‘hub of the universe,’ so inflated with pride in the belief that *modern anæsthesia* originated within its precincts. Learned sir, you were guilty of intolerable cruelty of your thick and thin supporters at Boston, who, no doubt, are very honest, whatever else may be thought of their discretion and good sense.”

The base insinuation herein contained with regard to the money obtained from Tuckerman, also that of suborning members of Congress, is so derogatory for the mere vindication of the claims of Horace Wells, of *Hartford*, that I can find no mitigating or palliative excuse for such a contemptible mode of attack on the private character, or impugning the motives of Wm. T. S. Morton, whose character for veracity and integrity at least stands equal to that of Horace Wells (*vide* “*Galigani*” letter, which contrasts with Dr. G. Q. Colton's account—Appendix.)

I unhesitatingly declare that such conduct, no matter how patriotic the object, recoils with intensified severity on the man who forgets his *honourable* cognomen, and appeals to the lowest passions and propen-

sities of our nature, so that blind ignorant prejudice should take the place which should have been supplied by an appeal to the higher sentiments and rational intellectual faculties.

It is this low calumny and abuse, which even descends to infamous scurrility, which everywhere daubs the pages of this *honest* production, "Modern Anæsthesia, by the Hon. Truman Smith," of Hartford, Connecticut, United States of America.

I do not know personally this distinguished and most honourable representative of the City of Hartford, but it seems from his constant "suppressio veri" and "suggestio falsi," that he belongs to that pharisaical class who flutter their own great deeds from housetops. It is these men who live in glass houses who are continually throwing stones—whose insatiable egotism is never appeased, except at the expense or immolation of some defenceless victim. Such is their magnanimity and nobleness of soul that they would trample on the corpse of their adversary. It is impossible to condemn in language sufficiently strong such ignominious appeals to the low grovelling propensities to gratify a morbid splenetic appetite or revengeful animosity. I say the perpetrator of such a criminal procedure as that exhibited by the Honourable Hartford representative in attacking private character when engaged in the investigation of a subject like the Anæsthetic discovery as applied to the alleviation of human suffering, will be visited in all future time as evidence of that morbid intolerant spirit which, if it had full bent, would drag poor victims to the stake, as of yore. Since then the times have changed, educational liberty has expanded her wings, otherwise would not these very men—of the Honourable Truman Smith type—commit all kinds of atrocious barbarities, and at the same moment smite their immaculate breasts in exultation as being exceptionally good and honest men. Yes; these are those who are mighty quick to discover and blazon the holes in another's garment when they themselves are clothed in rags, "all tattered and torn."

If "modern anæsthesia" had been truthfully and honestly compiled, in vindication of Horace Wells, giving a fair and candid exposure of all the facts, without resorting to such unwarrantable means, as attempting to elevate the "idol of Hartford" at the expense or demolition of T. G. Morton, of Boston, it would have been acceptable to men of science. The *ad captandum vulgas* exhibited in making such marvellous capital, as having caught a real Right Reverend Bishop and parading his certificate so conspicuously.

"I, Thomas C. Brownell, of the city and county of Hartford, depose and say that on or before the 1st of January, 1848, my daughter, Francis C. Brownell, had five teeth extracted by Dr. Rigg, a dentist of this city, she being at the time under the influence of nitrous oxide gas, administered by the late Dr. Wells."

Here, again, is exhibited the artful and *most honest* "suppressio veri,

suggestio falsi." Where is the date when this certificate was given—was it in 1866, or when? Was it 15 or 18 years after the occurrence to which it refers? In any case the teeth were extracted in 1848, or some 18 months after Morton had demonstrated the anæsthetic properties of ether!

I repeat it here, as it seems, the old game of the cuttle-fish, producing a *cloud*, so as to be thus enabled to escape from a difficulty. No one pretends that Horace Wells did not return to the use of nitrous oxide gas, after having *entirely abandoned its use for some 30 months*. My point is, that his return to its use was entirely in consequence of Morton's success with ether.

I must here state an important fact mentioned in my "History of Anæsthetic Discovery," published in 1868, that I gave a course of lectures on Anæsthesia in March, 1846, at New London, Connecticut, a few miles from Hartford by rail. I visited Hartford in April, 1846, but no mention was made to me of Horace Wells at that date, or of his experiments. It seems most curious that as I was lecturing on the identical topic, Anæsthesia, that no one should have mentioned Wells's trials of December, 1844, and January, 1845, to me. Such, however, is the fact: I never heard of Horace Wells until his "Galignani" letter was republished by Dr. H. Bennett in the London "Lancet," March 6th, 1847.

The testimony, if it were a thousandfold as numerous, would be of no value if it did not antedate September 30th, 1846. Of what use would be my publication in the London "Critic," March, 1847, wherein I use these words:—

"The Anæsthetic state is produced by the inhalation of the vapour of ether, nitrous oxide gas, alcohol, or any other stimulating vapour."

Had I not published the same in 1843, that of 1847 would be of no avail in proving the priority of my discovery. Still, this is the stylo of proof which the Honourable Trumau Smith adduces to prove that Wells did *not abandon* the use of nitrous oxide.

It is singular, passing strange, that no cotemporaneous published document of any kind is brought forward. Of course there is only one inference—**NONE EXISTS!**

Ex post facto statements have *no kind of value* in proving to the world what may or may not have taken place. In making this statement it must be remembered that "no value" is a comparative expression when made in relation to a *published fact*.

Had I not made experiments, and published in 1842 and 1843 that the inhalation of narcotic and stimulating vapours produced a nervous congestive or anæsthetic state?

It would be of no avail my bringing forward thousands of certificates from Right Reverend Bishops, Cardinals, pastors, and other members of the Church, with a solemn prologue, so as to render the mind fitted for such an ordeal, or the alternative of

being anathematized for *unbelief* like unto the manner adopted by the most honourable Hartford representative, they would be *valueless*, in comparison to my PUBLISHED facts of 1842 and 1843. It is, however, with this kind of extraordinary material that "modern anæsthesia" is crowded. What for? Why, to prove the most simple fact, as before stated. No, that is not the object; it is evident that the main purpose is, first, to destroy the fame of Morton; and, secondly, to prove that Wells did not abandon, for full two years and a-half, all "*reasoning by analogy*," as he stated in "Galignani," which led him to the discovery. If Mr. Wells had reasoning, and philosophically arrived at the conclusion that an anæsthetic state could be induced by inhalation, he never would have been *discouraged* by a single discomfiture, and abandon all further use for two and a-half years. Besides, as he had rendered insensible, by the use of ETHER and nitrous oxide *about* fifty persons, Mr. Wells further says: "My operations having been limited to this small number, in consequence of a protracted illness, which '*immediately ensued*' on my return from Boston in January, 1845."

Now, Dr. Ellsworth says he was lecturing on *ornithology* at this identical period, which is corroborated by Mr. T. G. Morton, who found him attending an exhibition of poultry, July, 1845—turkeys and geese and fowls. *Ornithology* forsooth!

But Mr. Wells so completely ignores the account given of the Colton Exhibition that I must quote his words in full:—"Reasoning from analogy, I was led to believe that surgical operations might be performed without pain, by the fact that an individual, when much excited from ordinary causes, may receive severe wounds without manifesting the least pain; as, for instance, the man who is engaged in combat may have a limb severed from his body, after which he testifies that it was attended with no pain at the time; and so the man who is intoxicated with spirituous liquor may be treated severely without his manifesting pain, as the frame seems in this state to be more tenacious of life than under ordinary circumstances. By these facts, I was led to inquire if the same result would not follow by the inhalation of some exhilarating gas, the effects of which would pass off immediately, leaving the system none the worse for its use. I accordingly procured some nitrous oxide gas, resolving to make the first experiment on myself by having a tooth extracted, which was done without any painful sensations. I then performed the same operation on twelve or fifteen others, with the like results; this was in November, 1844: being a resident of Hartford, Con. (U.S.), I proceeded to Boston the following month (December), in order to present my discovery to the Medical Faculty—first making it known to Drs. Warren, Hayward, Jackson, and Morton, the two last of whom subsequently published the same, without mention of our conference. Since this discovery was first made, I have administered nitrous oxide

gas and the vapour of ether to about fifty patients, my operations having been limited to this small number in consequence of a *protracted* illness which immediately ensued on my return home from Boston in January, 1845."

Now we are introduced to a new species of tactics. "To make the worse appear the better part," every date is suppressed which may tend to damage this most meaningless tirade.

"The honourable special pleader now indulges in the most curious epistolary exordium. It seems as a final and conclusive effort, from which there is no appeal—to wit:—

"My proofs are full and unexceptionable and conclusive, so that all must believe (or go to —). I except such as would not be persuaded, though one rose from the dead!!

"It is in my power to produce nearly a whole city under oath, and to bring forward the testimony of the Right Reverend Bishop of the Episcopal Church (none of your second-rate Methodist or Roman Catholic Bishops), several Doctors of Divinity, and other members of the clerical profession (not omitting the deacons, churchwardens, and sexton), besides most of the physicians (not omitting the chemists and druggists), surgeons, and those who practice the dental art, one or more professors, some members of Congress, and many who are desirous to be—besides a whole cloud of the fairer portion of God's creation (including those who suffered from the vitriolic acid thrown by Horace Wells); but I have no interest in the matter."

So it would seem. No more disinterested man could be found in the whole world—not even to carry off the honour from the "hub of the universe"—as the honourable gentleman denominates the city of Boston.

After such an exordium, delivered in such a *solemn*, impressive, incantative style, would it not be sacrilegious to even breathe a doubt or to muster sufficient temerity to raise a question, after such a threat, that a whole cloud of the fairer portion of God's creation could be brought, if necessary (that women came in "clouds," without wings, I have still to discover), then the august crowd of reverential magnates with *one* or *more* professors! Who could be such an infidel as to disbelieve? The Egyptian and Grecian priests put over their Temple this motto—"He that believeth not is damned."

I felt myself unconsciously—"holding my breath"—with a kind of awe—on coming "to the cloud of witnesses." It must be borne in mind that this is "Hartford certification," showing no "*species of mania*"—as it would be if the same certification took place in the city of Boston. When Right Reverend Bishops, Doctors of Divinity, *et hoc genus omne*, of Hartford, are brought forward to uphold the claims of Horace Wells, or more properly of the "CITY OF HARTFORD," then there is no "labouring under a species of mania,"—though the certification takes place some 17 or 18 years after the occurrence to

which they certify when there is only a murky, foggy-confused recollection.

If I were to bring up the ghosts of all the mice, rats, frogs, pigeons, and other animals, on which I had experimented in 1840, 1841, 1842, 1843, 1844, 1845, and 1846—the investigation of Anæsthesia—I could have another cloud of witnesses, whose testimony would be so overwhelmingly powerful as to antagonise the other cloud from Hartford.

The Hon. Truman Smith says, page 92—"But it is due to candour and truth that I should admit, as I now do, that the fact had not been generally known to the profession at the date referred to (1846). Wells was doing all he could to make it known."

A most singular method was employed by Wells to make it known—attending in 1845 an exhibition of poultry—or as Dr. Ellsworth has it—lecturing on Ornithology, then becoming a dealer in pictures. Visiting Paris in December 1846, where he remains for full two months without referring to long-since-forgotten and abandoned trials with nitrous oxide gas in December 1844 and January 1845, arrived at not by a process of "logical inductive reasoning," as published in "Galignani," but by the accidental observance at the Colton exhibition of a person having bruised himself without experiencing pain.

The Hon. Truman Smith repeats at pages 34 and 127, these words when speaking of Wells: "*Had he received a thorough educational training.*" It was exactly from this want of knowledge, that he did not "reason from analogy," otherwise he never would have given up all further investigation, and devoted his time to other pursuits until after Morton's successful introduction of ether.

It will naturally be asked why the necessity of resorting to such an exceptional and extraordinary course as making such appeals to our supernatural and superstitious fears, laying an impost on our devotional sentiments, only to prove the most simple of all facts, that Horace Wells, a dentist of Hartford, did, on the 10th of December, 1844, attend an exhibition of the laughing or nitrous oxide gas by Dr. G. Q. Colton; that he saw a man bruise his ankles without experiencing pain; that next day he had himself a motor tooth extracted while under the influence of the gas. He was convinced that no pain was experienced, and visited Boston for the purpose of benefiting the world by the experience obtained on his own person; from some cause or other, *he failed* to convince the medical men; he then returned to Hartford discouraged; and having *lost faith* himself in the Anæsthetic properties of nitrous oxide, he abandoned all further investigation of the subject, and to use his—Wells'—own words to Morton in July 1845, "*that it had no practical value.*" Though this account differs essentially from that given by Wells himself in "Galignani's Messenger," February 18, 1847, I have no reason to doubt the accuracy as to what Morton said with regard to this July 1845 interview with Wells; it is corroborated by all the subsequent facts, more particularly that Wells occupied

himself in an exhibition of poultry in which he was much interested. Dr. Ellsworth says he lectured on Ornithology. Be that as it may, he was a bird-fancier for the period immediately after his discomfiture in Boston with the nitrous oxide; nor did he prosecute any further investigation on the subject of Anæsthesia, but abandoned it until after Morton's successful *débüt* with ether, September 30, 1846.

No amount of certification can get away from these facts. The whole cloud of witnesses, including the Right Reverend Bishop, all sorts of Prelates, Canons of every calibre, great and small, Archbishops, and a host of sundry other reverential and ecclesiastical gentlemen, who, having the great good luck to be residents in or about the precincts of the city of Hartford, who thus escape the imputation of being subject, in the most remote degree, to any "species of mania," whilst certificating for Horace Wells, or for the "city of Hartford"; but this honourable representative becomes so enthusiastic, though "not in the least degree *interested*," that it only requires the interposition of a few saints to render complete the apotheosis of Horace Wells.

"The contrast," as drawn by the honourable representative for Hartford. The Boston man, Wm. T. G. Morton, is summarily dealt with. He, poor fellow, is sent to an undefined, unexplored region, where, it is said, a clergyman was never seen, the presiding spirit being depicted as "Jet black, with *cloven* feet, a caudal appendage, and a large pair of antlers." His colour, however, is a moot point, for the negro minister said he was "a damned white man." Be that as it may, as I have no disposition to be analytical as to the prismatic tints of the head director of that extensive sulphur-burning establishment; it is quite sufficient Morton was a citizen of the "hub of the universe," to be sent to — "and bathe in fiery floods," or perhaps to the Polar circle, "to reside in regions of thick-ribbed ice," or to be pent within the viewless winds, and sent with restless violence "round about this pendent world," or to some other equally uncomfortable or undesirable place of residence. Mark, again, "the contrast." Horace Wells is sanctified—deified. He is rendered immortal for the deeds done in the flesh. 'Tis, indeed, "a contrast." It is too well drawn, with the overpowering cloud of *ex post facto* certifications. Time and distance have, indeed, most effectually lent enchantment to the failings of the past. "Time sets all things even." Had not Joe Smith, the "head and front of the Mormon offending," been mercilessly shot by a fanatical opponent whilst confined in Nauvoo prison, some 50 years ago, Brigham Young would not until this moment have been able to maintain his authority in Utah. Make a man a martyr, and from that moment he is surrounded with a mystic halo, which so enshrouds and envelops him that every past deed is obliterated in the sanctification incidental to the martyrdom.

If I have not been misinformed, when Morton visited Europe, he

obtained the Pope's benediction; no doubt, had he chosen to have paraded a catalogue of solemn-sounding titles, as he might have done, and if such had been only endorsed by this greatest of discoverers, Dr. Charles T. Jackson, professor of chemistry in the Boston School of Medicine, who, had it not been for Professor Samuel Morse, would have been the discoverer of electro-telegraphy, who could have resisted such testing?

The whole of the Honourable Truman Smith's "Modern Anæsthesia" is an *ex-parte*, special pleading affair—a more wretched failure it is difficult to conceive. To read a book which from beginning to the end is a constant repetition of abuse and base insinuations, suppression of truth, and constant suggestions of error, when applied to a man like Mr. T. G. Morton, whom the shaft of calumny cannot deprive of the honour of having practically introduced the use of anæsthetics in surgical operations by the medical profession. Who can filch from Boston the honour that at the Massachusetts General Hospital *the first* capital surgical operation with ether was performed, October, 1846?

That a monument should have been erected in Boston in commemoration of this event without the name of Mr. T. G. Morton is, to me, a circumstance so inexplicable, that there must be some mistake, which time will be sure to rectify. I do not expect the people of New York, in the monument lately erected there to the discoverer of electro-telegraphy, have omitted the name of Professor Samuel Morse—the omission of the one name would have been as consistent as the forgetfulness to place the name of Morton on a monument erected to the anæsthetic discovery in Boston!

What to the dead is "the bauble reputation," with all its pomp and circumstance?

They have passed beyond the reach of vaunting ambition's exultant scenes. Fame and renown are alone the prompting stimulants to those who live, when the debt of nature incidental to existence has been paid; *then* is cancelled all that belonged to life.

With death should be buried all rancour and bitter thought, for to wage war beyond the grave is indeed the mockery of every noble or charitable principle. In the cause of *truth* alone should a disparaging thought be written of those who have passed the ordeal of life's period, sooner than ourselves who still live. *Truth* is for the future, therefore demands unsparing justice in its *administration*. In a short time I too will be numbered with my forefathers. It is, therefore, in the strictest sense of the truth of my having been the original pioneer that I expose the trickery and even fraud that was resorted to in the years 1846 and 1847 to deprive me of the honour incidental to so great a discovery as the ABOLITION OF PAIN DURING A SURGICAL OPERATION!

I expose, without fear or favour, the consummate dishonesty of

those who really have no claim to the discovery with the consciousness and conviction that posterity will judge of the rectitude of my position with the most rigid impartiality.

William T. G. Morton, dentist, of Boston, United States, will live in the memories of impartial honourable men, when those who have from some personal jealousy forgotten to place his name on the monument, will be lost in the past, no matter from whom he borrowed the idea of rendering surgical operations painless by the inhalation of ether. He had the hardihood, the courage, to put the idea into practical operation on the 30th September, 1846, and the world will hand down his name as being instrumental in the adaptation of one of the greatest blessings in the alleviation of human suffering during a surgical operation.

The rivalry of

HARTFORD VERSUS BOSTON

has not been satisfied until the capital of Connecticut was adorned with a bronze monument to

HORACE WELLS.

The chairman of the Congressional Committee, Col. Wm. H. Bissell, afterwards Governor of the State of Illinois, said, "Wells had the merit in December, 1844, and January, 1845, of *reviving* and probably of hastening the discovery."

Whose investigations did Wells revive? Were they not those instituted *by myself* in 1840, 1841, 1842, and 1843?

Had either Horace Wells or Wm. T. G. Morton been medically educated men—had they arrived at the process of producing an anæsthetic state by "logical inductive reasoning," they would perhaps have accomplished their object without the discordant elements incidental to men who accidentally, so to speak, tumble on a great discovery. I do not imagine that any one will doubt that which was accomplished by Morton may have had some connection with the assertion of Wells, that his tooth was extracted painlessly on the 11th December, 1844. That both Wells and Morton had had their attention immediately directed to the necessity and possibility of producing an anæsthetic state by my public lectures in 1842-43, I think cannot admit of a question, but my advocacy and experiments had merely prepared and directed the public mind to the subject. The idea had been implanted by me—it took root; the minds of Wells and Morton had only to be awakened by a *suggestive* circumstance, as did occur both in Wells's case at Colton's exhibition, and also with Morton, who had previously resorted to mesmerism in the extraction of teeth, as did most of the dentists of Boston at that time. *I was well aware* that any stimulating or narcotic vapour when inhaled would produce an insensible state as early as 1839, since the reduction of the dislocation in Louisiana; still it was most difficult to render the idea *practicable* from

the positive dangers attendant on experiments with no experience for a guide. It is here that Morton deserves so much credit. He took THE RESPONSIBILITY AND THE RISK, and it is here that Dr. Chas. T. Jackson is entirely shut out from all participation in the honour connected with the discovery. The part he played was really most insignificant. He most likely told Morton to use ether instead of nitrous oxide, but as he and Morton both entirely ignored the anæsthetic properties of the gas, he necessarily could have had no idea of the anæsthetic properties of ether. In fine, he takes oath, on the 27th October, 1846, that he had *not an idea* that Ether had properties prior to Morton's experiment of the 30th September, 1846. For Dr. Jackson to claim any participation in the discovery is inconsistent with the facts; he, I repeat, may, have suggested to Morton the use of ether in lieu of nitrous oxide, which was in Morton's mind from the statement he had previously heard from Spears. Morton was entirely ignorant of the properties of sulphuric ether, and was desirous of obtaining all the knowledge he could from Dr. Jackson to this extent, no more. Has this gentleman, therefore, any claim to be associated with the discovery? He accidentally suggested the use of Ether. (*Vide* letter, Appendix.)

The United States Senate in 1852 passed a resolution offering 100,000 dollars to the discoverer of Modern Anæsthesia. At this time I was in California on my hearing of this offer, and that Morton and Jackson were contending for the prize. I published the following letter, on the 21st May, 1852, in the "Daily Alta Californian."

"THE ETHER CLAIM.

"Messrs. Editors,—If I did not publicly perform, in the cities of Boston and Philadelphia in 1842, experiments on living persons, by 'the inhaling of narcotic and stimulating vapours in corroboration of the feats of the Egyptian magicians and the fakirs of India, the Pythoness of the Delphic Oracle in the Temple of Apollo;' and also publish in May, 1843, in Philadelphia, a work, wherein at pp. 26, 27, and 28, I declare distinctly and unequivocally that 'the inhalation of all narcotic and stimulating vapours will produce the unconscious or nervous congestive condition of brain, identical with that produced by mesmerism;' if these are not truths, then the world shall pronounce me to be a contemptible charlatan, and unworthy of respect or confidence. But, on the contrary, if in 1842 and 1843 I did perform and publish these facts—which was years previous to all my competitors—then to me alone is the honour due of declaring that all stimulating and narcotic vapours will produce an unconscious state, so that surgical operations can be performed without pain to the patient.

"As to Drs. Morton, Jackson, Smilie and others, resorting to seurrility and abuse of each other, I care not. Let them first disprove my claim, which none of them have yet dared to attempt. I am carefully omitted in all their controversies. Why? Because the book referred to was

published in 1843, and one thousand copies sold in New York, Philadelphia, Boston, and other cities of the Union.

"Let it be remembered that in 1841 and 1842 I performed various surgical operations in the mesmeric state, without pain. I extracted a fungus eye from a child nearly two years old; a tumour of four pounds from the shoulder of a young woman, and extracted more than fifty teeth. I published the identity of the condition induced by inhalation, and that of the congestive condition of brain, in 1843, which was three years prior to Dr. Morton's first trial, September 30th, 1846."

"ROBT. H. COLLYER, M.D."

This publication I sent to the most prominent members of Congress.

In February, 1863, a report was made by the Hon. Henry Wilson, chairman of the Senate Committee on military affairs, which was submitted to the United States Senate. The substance of which is as follows:—

"That at the time of the alleged discoveries in 1846 and for a long and indefinite period prior thereto, means had been sought to relieve and even to destroy pain in surgical operations.

"For this purpose, opium, Indian hemp, mesmerism, nitrous oxide gas, alcohol, were used with partial and imperfect success, but at this time (1846) there was not any safe and certain means of producing anæsthesia known to and used by the medical profession." As neither Wells or Morton have ever claimed the use of alcoholic vapours or Indian hemp, it is evident that the chairman must have referred to my experiment from 1840 to 1843.

I have nothing to do with Morton's private character. That does not in any way affect or influence the question as to his having been the cause of the anæsthetic process as applied to surgical operations, becoming an accomplished fact. I therefore repeat the words used in my recent work on Anæsthesia in *Mysteries of the Vital Element, in connection with Somnambulism, Dreams, &c.*, published by Mr. Renshaw, 356, Strand. I repeat it most emphatically, and declare that if there is credit due to any one in this connection, it is alone to Wm. T. G. Morton. He, with a boldness which deserves every consideration from a *grateful public*, launched the structure, though built by others, on the successful ocean of public favour. He must be forgiven for the questionable means he employed, though not admitted as legitimate in a professional point of view. I feel convinced that had he not resorted to *these extraordinary and exceptional* measures, the anæsthetic discovery might have remained for years unheeded. All honour, therefore, to his memory! He repeated successfully in 1846 my experiments of 1839, 1841, 1842, 1843.

Let us review the temper and humour of the medical profession immediately prior to Morton's successful employment of ether. In 1839, Velpeau, one of the leading surgeons of Paris, publishes, in his

work on surgery, "To do away with pain in surgical operations is a visionary impossibility which is now not permitted to be thought of; the cutting instrument and pain in surgical operations are two things which cannot be separated," &c.

PAINLESS AMPUTATION OF THE THIGH.

In September, 1842, Sir William Topham mesmerised a poor man at Willow, Nottinghamshire, previous to amputation of the thigh for agonizing white swelling of the knee—the operation being performed without the slightest pain. He (Sir William), in conjunction with the surgeon, drew up an unadorned report of the case, and presented it through the hands of Mr. Stanley, a surgeon of St. Bartholomew's Hospital, to the Royal Medical Chirurgical Society of London, before which it was read on the 22nd November, and the account was received at the meeting, at which the chief Metropolitan physicians and surgeons were present, and received with derision and insult.

The poor man was branded by some as a vile impostor who shammed insensibility, and had been trained, and by others as one insusceptible to pain, although in his non-mesmerised state he was agonized by the slightest movement of the limb.

One surgeon, the late Mr. Liston, asked if the interesting patient had sufficiently advanced in his education since the operation as to be able to read with his stomach. Dr. Marshall Hall declared that the poor fellow must have been an impostor, because that when the diseased leg was being cut off he did not draw up the sound one. The late Dr. James Johnstone assured the meeting and declared he would not have believed the facts had he witnessed them. The late Dr. Joseph Moore said that the affidavit of the truth of the transaction ought to have been made before the Lord Mayor.

The present President of the College, Dr. Thomas Mays, considered the subject ought not to be treated with ridicule or rejected because it was startling, and that Sir B. Brodie's suggestion that the man was hysterical was totally unsupported, and pointed out the difficulty of supposing that all the persons of different countries and times who had exhibited mesmeric phenomenon were impostors.

At the next meeting of the society, that day fortnight, "It was resolved that no record be kept of any such painless operation having been performed, and that no minutes of the first meeting be kept." Dr. Capland contended that the fact of the man experiencing no pain was unworthy of their consideration, and he successfully moved that the minutes of the previous meeting be erased. So that the society has no record of the case.

The highly respectable position of Sir William Topham did not prevent the profession from denouncing the uselessness of painless operations.

It will also be seen that months after the successful introduction of

ether as an anæsthetic into all the London, Paris, Berlin, and Vienna hospitals, some of the leading English surgeons thought the prevention of pain unnecessary.

Sir James Simpson says, "A new era, however, arrives in ehirurgical science, and a measure is at last brought to light, through the influence of which surgeons may perform operations, and patients submit to them, even when of a prolonged nature, without the necessity of pain. It is found that the exeruciating tortures and writhings and shrieks of the patients on the operating table may be saved, and yet the required operations be as well and perfectly executed as before."

Scarcely, however, is this glad and glorious discovery announced and acted upon than another new and, if possible, still stranger discovery is broached and anxiously propagated—namely, that in cutting the living flesh of man the surgeon's knife does not, after all, produce any very remarkable or very important amount of pain, and that immunity from this pain during operations would be perhaps an evil rather than a good to humanity—a calamity rather than a blessing. At a meeting of the South London Medical Society, held April, 1847, Dr. Gull (now Sir William Gull) read a paper on the injurious effects of ether inhalation, with the question as to the *desirability* of removing pain, &c. Mr. Bransby Cooper, surgeon to Guy's Hospital, afterwards affirmed it as his opinion "that pain was a premonitory condition, no doubt fitting parts, the subject of lesion, to reparatory action, and therefore he (Mr. Bransby Cooper) should feel averse to the prevention of it." "Pain," argues Mr. Nunn, surgeon to the Colechester and Essex Hospital, in some observations against ether inhalation, "pain is doubtless our great safeguard under ordinary circumstances; but for it we should be hourly falling in danger, and I am to believe that pain should be considered a *healthy indication*, and as an essential concomitant with surgical operations, and it is amply compensated by the effects it produces on the system as the natural incentive to reparative action." Arguing in a similar but still more bitter strain against etherisation, Dr. Pickford affirms that "pain during operations is, in the majority of cases, even desirable; and its prevention or annihilation is the most hazardous to the patient."

Upon one of the first communications being given to the French Academy of Sciences upon etherisation, M. Magendie, the distinguished physiologist, maintained that pain has always its usefulness; he doubted if there was a true advantage "in suppressing pain" by rendering patients insensible "during an operation," and argued that "it was a trivial matter (*c'est peu de chose de souffrir*), and a discovery whose object it was to prevent pain was of a slight (*mediocre*) interest only."

No one could combat such arguments—they carry their own refutation.

For any man to declare pain as a beneficent dispensation on the human being during any condition of his existence seems, according to my idea, in a condition of mental derangement—"a species of mania," as our honourable Hartford friend would say of the Boston people. Still, it was this stolid unmeaning opposition that I had to do battle with during the years 1840, 1841, to 1843. It was then that the anæsthetic discovery was given to the world; it was not one fight, but a continued series of battles; it was then the anæsthetic ideas by the process of inhalation were everywhere disseminated. To make use of the language of the *Lancet*, June 11th, 1870—

"It is difficult to estimate what effect Dr. Collyer's lectures and writings had upon the direct progress of the discovery, but at the time we name (1842, 1843) they excited great general attention, as the lectures (and experiments on inhalation) were delivered in various places and before large audiences, and were commented on freely by the public press, and as Dr. Collyer's writings were disseminated broadcast, it is next to impossible to assume that they did direct the minds of men to the subject of INHALATION for the purpose of producing temporary insensibility to pain.

"Any way, it is one of the strangest of coincidences, if it be a coincidence, that the development of the anæsthetic process by inhalation took place immediately after Dr. Collyer's public exhibitions, and in the very centre where his lectures had been delivered!

"Dr. Collyer, we say, is to our minds the TRUE PIONEER AFTER ALL, THE MAN WHO RAN FIRST, &c."

On reading the past history of any discovery, no matter how important as tending to benefit or enlarge man's knowledge, it is sure to meet with a perverse, unmeaning, purposeless opposition. It matters not whether these men are intellectually great or small, they invariably manifest themselves not from any special disposition to oppose the advance of truth, but from a conservative tenacity to that which exists, as being all sufficient.

Let us review the past introduction of the most important discoveries.

When the immortal William Harvey discovered the circulation of the blood, contemporaneous history informs, not a member of the profession in his day and generation would give credence to the truth of this wonderful fact. Jenner, on his introduction of vaccination, had to fight a battle against perverse opposition. When Benjamin Franklin sent his report as to his discovery of the identity of lightning with electricity, it was received with a shout of laughter from the members of the Royal Society of Great Britain.

When Sir Humphry Davy and Dr. Wollaston were consulted as to the practicability of coal gas being used for lighting purposes, they pronounced against its practicability.

Sir Joseph Banks stated it was ridiculous to suppose that a steam-engine could be used in a vessel, because it required a *solid foundation*,

and in this idea he was sustained by no less a man than the great James Watt.

When the French Academy was consulted by Napoleon the First as to the practicability of steam navigation, they ridiculed the idea as preposterous. Even the members of the British Association in 1838 declared that it was impossible for a steam-vessel to cross the Atlantic.

Until 1846 the whole medical world ridiculed the idea of rendering surgical operations painless "by the inhalation of narcotic and stimulating vapours."

My efforts from 1840 to 1846 were treated with a species of ridicule, and I was denominated an impostor, in declaring that an anæsthetic state could be produced so as to render the knife of the surgeon painless!!!

It was only a few years since that the celebrated Robert Stephenson declared it impossible to open the Suez Canal, and this opinion was shared by the whole of the English people. The British Government in 1874 paid four millions sterling for a share in the said canal!!!

Numerous other examples might be adduced as showing how dangerous it is to denounce the practicability of overcoming *seeming* impossibilities.

The discoverer or the inventor must be a man whose determination cannot be discouraged or discomfited by opposing obstacles; these should only stimulate to greater exertions in the development of the hidden truths which everywhere surround us. Great as may have been the strides in the application of steam and electricity to the practical purposes of life, the future unravellings of Nature's wonders will eclipse these in the same ratio as our present scientific successes have the past.

The discoverer and inventor can afford to use the language of Shakespeare.

"Is the sun dimmed that gnats do fly in it?
The eagle *suffers little birds to sing,*
And is not ear ful *what they mean thereby;*
Knowing that with the shadow of his wing
He can at pleasure stint their melody."

Dr. Jackson, it must be allowed, has the most unfortunate and also accommodating memory I ever heard of. He always forgets to record and publish to the world the numerous discoveries he has made until some one does so for him; then, and not until then, his memory serves him—that the discovery *is his own!* I think a scientific man of Dr. Jackson's pretensions is to be pitied. His disposition to denounce each and every one of those who have made discoveries, which he has pretended to claim as being entirely ignorant, except as to the knowledge derived from himself, is, to take the most amiable view of *this peculiarity*, a monomania or hallucination—for no one could doubt the veracity or honesty of so great an authority on scientific subjects.

The flagrant absurdity and impossibility of the *ex post facto* concocted story does not, in the most remote degree, take away the merit due to Mr. W. T. G. Morton, who caused Frost to inhale sulphuric ether on the 30th September, 1846, and when he was rendered insensible he (Morton) extracted a tooth painlessly—the same as I had done three years before. But the imaginative story has a most damaging effect on the reputation of Dr. Charles T. Jackson, Professor of Chemistry in the Boston School of Medicine, showing how willingly he lends his name to what never existed, because, as he supposed at the time, it appeared a most plausible story for the public, in showing how immediately he was associated with the discovery. (Vide Appendix.)

Dr. Jackson reminds me of a famous old English admiral with whom I was on the most intimate terms of friendship. He never heard of any discovery or invention that he had not anticipated years before.

I here most explicitly declare that after the most impartial, most critical investigation and knowledge of the whole controversy, I am quite convinced that Dr. Charles T. Jackson has no right to be considered a claimant—that is, his claim is of no value, as his association with Morton was merely of a haphazard character, nearly identical with the accidental meeting in 1832 with Professor Samuel F. B. Morse, the original discoverer of the electro-magnetic telegraph.

I here extract from a pamphlet sent me from my dear old friend, Professor Morse, which I received, March 15th, 1872, one of the last acts of his life, as the next mail brought the tidings of his death, at 82 years of age. Its reproduction by me must not be considered inopportune, as the circumstances attendant on Dr. Jackson's mode of procedure in this instance, in the vain attempt to deprive Professor Morse of the merit of being the original inventor of the electro-magnetic telegraph, is nearly identical with that pursued towards Morton in 1846. Both instances indicate a recklessness of character as regards the narrative of the facts as they were rarely surpassed in the history of artful strategy to the accomplishment of the object sought, the appropriation to himself of that which in truth and honesty belonged to others.

There are a certain class of men who should possess good memories. Dr. Charles T. Jackson most assuredly belongs to this fraternity. In the following the reader has only to substitute "ANÆSTHESIA" in lieu of "TELEGRAPHY" and "MORTON" in lieu of "MORSE" in order to arrive at an estimation of the true character of this man.

Dr. Jackson, even to suit his purpose, pooh poohs nitrous oxide in 1848—please retain this date. He says—"By oft-repeated experiments in the inhalation of protoxide on myself and others in every possible way, I soon became fully satisfied that it possessed no anæsthetic properties."

Who would believe this now, in 1875, when probably a million of persons have been rendered insensible to pain by the inhalation of the protoxide

of nitrogen gas, during which state of *nervous congestion* surgical operations, more particularly dental, have been performed?

In March, 1847, I published in the London "Critic" the fact that the inhalation of nitrous oxide gas produced the insensible state. I had frequently made experiments on animals with this gas. My words in 1847 are most positive. "This is the case in the inhalation of ether, alcohol, or protoxide of nitrogen, or any other stimulating vapours."

Can any one believe that Dr. Jackson had in 1848 made experiments with nitrous oxide gas, when he published that *it possesses no anæsthetic properties*? How was it possible that Dr. Jackson could have said to Wm. T. G. Morton, "*Give the lady ether, it will make her sleep.*" As to this pretended conversation prior to his knowledge of the anæsthetic properties of ether, I fear it is a parallel case to the *chalk design on the ship's deck*," which no one remembered but himself. In fine, Dr. Jackson seems regardless of consequences; he is perfectly reckless in making any assertion without the least attention to the truth of the case, so long as it suits his purpose at the moment. It is passing strange that such a man could have duped so many persons into the belief that he was a discoverer! One French author in 1847 dedicates a work to the *Immortal Jackson*! The following extract from Professor Morse's pamphlet, 1867, is pertinent and applicable in showing how Dr. Jackson acted in 1839 with regard to his pretended claim to telegraphic discovery, which was repeated in 1846 with regard to Anæsthesia.

MORSE *versus* JACKSON.

"In carrying out the object I propose to myself in this publication, to wit, 'the exposure and correction of some of the errors of dates of events, and of statements in the history of Telegraphs and the full exposure of the pretensions of Dr. C. T. Jackson,' a chemist and geologist of Boston, who was summoned and figured as a witness in the telegraph suits in the United States, could not well be overlooked. Some persons may be inclined to ask with some show of reason—why drag again before the public a controversy which is everywhere settled in your favour? Why exhume the dead, and subject to a *post mortem* examination that which might be left to perish in its own corruption? Why reproduce the counter evidence against a witness, whose reckless assertions before the United States Courts were so justly estimated at their real value as to be wholly disregarded by the Judges?

"My answer is, that it is not quite true that the controversy has *everywhere* been settled in my favour. The *falsehoods** of that witness are still propagated in the current histories of the telegraph as truths, and are even at this day brought forward to disparage my claims as inventor of the telegraph. I have not, therefore, been the agent of this

* "The appellative '*falsehood*' I am aware is harsh, but the facts warrant the use of it in this case."

exhumation. I find certain members of this decaying body already exhumed and endowed with a certain semblance of life to be preserved as precious specimens in their cabinet collection by certain telegraphic anatomists to serve for demonstration in their process of disparagement of my claims to originality, and to throw suspicion upon the paternity and infancy of the telegraph.

"The falsehoods of Jackson are embalmed by many historians of the telegraphs, in their works, their authors I am willing to think, honestly believing them to be the truth. For example, the learned work of the ABBE MOIGNO, of France, *Traité du Telegraphe Electrique*; Dr. WYNTER's, in England, in his "Curiosities of Civilization;" PRESCOTT's in America, in his "History of the Telegraph." WALFORD's, in London, in his "Men of the Times;" and C. KUHN's in Germany, in his recent work "Handbuch, &c." all reproduce some of the falsehoods of Jackson. These are only a few works that have come to my knowledge, all repeating the same story. How many others there may be I know not. I occasionally meet a repetition of some of these falsehoods in articles in magazines and in newspapers.

"It is undoubtedly the case that the European historians of the telegraph have made some extracts from Jackson, in ignorance of his position and status in his own country, where his unfortunate idiosyncrasy is now well understood. One of the most distinguished men in Boston—the home of Jackson—thus writes to me:—"It is a shame, an outrage of his crazy claim, that your discovery has any hold in Europe. It is high time his position was settled *there as it is here*. I think his misfortune is quite as much intellectual as moral. His constitution is half insane. I doubt if he knows his own history or the processes of his own mind. From defects, partly mental and partly moral, he has given great annoyance and trouble to our world of science."

In another letter the writer says:—"Jackson is an anomaly. Facts, fancies, hopes, and guesses are jumbled in his mind together, and he hardly has the power to tell them apart. He has been reckless about them all his life, and where his ambition or his passions are concerned he can *falsify* with least cost of conscience to himself of any man I ever knew."

In March, 1848, the trustees of the Massachusetts General Hospital sent me a copy of their report in the other controversy between Dr. C. T. Jackson and Dr. W. T. G. Morton. The gentleman who forwarded the report to me thus writes:—"You will be struck with the coincidence in your case and in this. In each case Dr. Jackson made no EXPERIMENT and established NOTHING. But after some one else had demonstrated the truth, he claims to have known it years before, and to have communicated it to the demonstrator! In each he sends a private letter to M. Elie de Beaumont, and introduces himself to the Academy *as the true discoverer*,

and thus gets certain gentlemen committed in his favour. I think the two cases (Electric Telegraphy and Anæsthesia) will illustrate each other, and that his defeat will be the more entire from the magnitude of his attempts. His character *for voracity* is gone in Boston. Every day we hear instances of *exaggerated and false statements* in various scientific matters in which he has been engaged. As might naturally be expected, such a character could not long conceal the constitutional peculiarities. They would manifest themselves on other occasions, and it will not surprise any one to learn that his self-appropriating proclivities were at length so flagrantly developed in his position as United States geologist as to excite the disgust of his assailants, and that charges were preferred against him before the Secretary of the Interior, and after the investigation of them by the Clerk of Surveys, the result was he *was dismissed from the Government service.*"

Professor Morse says, in conclusion:—"Alas! the whole story of *the pretended chalk drawing* is a clumsy falsehood manufactured for the purpose, like so many others from that disordered source. It is simply a romance; there is not one word of truth in it, and no one knows better than Jackson himself. I hazard nothing in saying that no such drawing and no such lecture was ever delivered by him on board the ship 'Sully,' Oct. 1832." For full details, *Vide* Professor Morse's pamphlet of 80 pages, containing all the evidence before the United States Courts.

To sum up my conclusions as to the early history of the Anæsthetic discovery, I must declare that the first published suggestion was by Sir HUMPHREY DAVY, April 11, 1799: "That the nitrous-oxide, amongst its other properties, has the *power of destroying physical pain.*"

Dr. JULES CLOQUET (now Baron) during the anæsthetic state, induced by mesmerism, removed the entire breast of a lady.—Paris, April 12th, 1829.

Dr. ROBERT H. COLLYER reduced the dislocation of the femur of a negro who had inhaled alcoholic fumes.—Louisiana, Dec. 1839.

Dr. ROBERT H. COLLYER rendered a child 20 months old insensible to pain by the mesmeric process, during which condition the entire eye was removed by Dr. RICH, occupying 35 minutes.—Bangor, Dec. 1841.

Dr. ROBERT H. COLLYER produced the anæsthetic state on Miss Allen by the inhalation of narcotic and stimulating vapours, during which condition she had a tooth extracted.—Philadelphia, May, 1843.

Dr. ROBERT H. COLLYER.—Reports of lectures, *vide* *Liverpool Mail and Standard*, October, 1843, also "Psychography," published May, 1843, wherein at pages 26, 27, 28, 30, 32, 35, and 36, it is stated that the inhalation of narcotic and stimulating vapours produce an insensible state.

HORACE WELLS had a tooth extracted during a condition of insensibility, produced by the inhalation of nitrous oxide gas.—Hartford, December, 1844.

WM. T. G. MORTON caused Eben Frost to inhale sulphuric ether, during which state he extracted a tooth painlessly.—September 30th, 1846.

Sir WILLIAM LAWRENCE produced an anæsthetic state by chloric ether.—June, 1847.

Sir JAMES Y. SIMPSON, at the suggestion of Mr. Waldie, chemist, of Liverpool, inhaled chloroform.—November, 1847.

It is not my intention now to enter into the history of those who came afterwards—those who, having the discovery made for them, substituted other anæsthetics in lieu of ether and nitrous oxide. It is now an unquestionable fact that these are the safest and best anæsthetics, not liable to danger like the pernicious chlorine compounds, chloroform and bichloride of mythelene, and others of like nature. It is so easy to become wise after events have occurred. The great principle published by me in May, 1843, "that the inhalation of all and every narcotic and stimulating vapour produced an unconscious and insensible condition of brain" cannot be got rid of. No amount of tergiversation, or abjuration, or equivocation, can alter this fact. Except a prior publication to this can be produced, how is it possible to dispute my being the original discoverer of modern anæsthesia?

If I have been severe in expressing myself at any time of either Horace Wells or W. T. G. Morton, I have done so strictly in the cause of truth. It cannot be forgotten, or the fact ignored, that neither one or the other had any knowledge of physiology or chemistry, or, in fine, of any other science.

Had it not been for the rivalry of BOSTON and HARTFORD, their claims would never have been heralded to the world as they have been. No one disputes that Horace Wells did have a tooth extracted after the inhalation of the nitrous oxide, December, 1844, the gas having been administered by Mr. (now Dr.) G. Q. Colton.

It is also certain that Wells's attention at this particular time to the subject arose from the fact of Mr. Cooley having injured his ankle while under the influence of the gas on the previous evening at Mr. G. Q. Colton's exhibition of the gas.

Had Horace Wells possessed the least notion of physiology, more particularly of the action of stimulants when inhaled on the brain—had he known that a comatose state was essential to ensure success, he never would have ENTIRELY ABANDONED the use of nitrous oxide after his discomfiture in Boston before Dr. Warren's class, in company with Wm. T. G. Morton, 1845. It will be seen that he became a bird-fancier immediately after, and then a dealer in pictures, in which occupation he continued up to the period of his hearing of Morton's success with sulphuric ether, September 30th, 1846. Mr. Wells did not receive the information until January, 1847, he being then in Paris picture dealing.

As to Morton, it is undoubtedly true that he obtained from myself

in 1842 and 1843 the fact that the INHALATION of all narcotic and stimulating vapours produced an insensible or nervous congestive state of brain. Still, he has the credit, no matter how questionable the means employed, of successfully bringing the subject before the public.

It was "the questionable means" employed, such as securing letters patent, in conjunction with the celebrated Professor Charles T. Jackson, chemist and geologist; and the extensive advertizing in all the journals of America and Europe of the sale of licenses!

Had it not been for these questionable means, it is doubtful to my mind, from the previous experience I had had, if the profession would have adopted the anæsthetic process.

It was this bold, unblushing, CHARLATANERY and the PATENT business, which caused its adoption.

No unprejudiced person, at this moment of time, on dispassionately reviewing the whole of the facts as they actually occurred, but must come to the like conclusion.

Had I resorted in 1843 to the same means of securing a "patent," and demanding licenses for the use of the anæsthetic process, as did Morton and Jackson in 1846, I should have had the sole reputation as the discoverer. "Truth is not spoiled by keeping." But I should have been saved myself the necessity of now vindicating my claims had I condescended to have resorted to such means so repugnant to every sense of right, in thus taxing the means of alleviating human suffering. To the scientifically educated mind such a mode of procedure is so abhorrent as not to be entertained for one instant. It would be inconsistent with every principle which governs the true lover of science. Still, this was the method adopted by both Drs. Jackson and William T. G. Morton. I was so shocked and astonished at the time that I immediately published to the world, AS THE ORIGINAL DISCOVERER, the free use of the anæsthetic process. (Vide letter, January 2nd, 1847, to the "Jersey Times," and "London Medical Times")

In conclusion, all I demand is an honest, impartial verdict, without the least favour. I have been particular in the dates, all of which it is in my power to confirm, as being strictly correct. All depends on the period of time when the first experiments were performed. After these have been compared, no doubt can, by any possibility exist that my claim antedates those of Horace Wells and William G. T. Morton by years. It was this comparison which caused Dr. Benjamin W. Richardson to say in the "Lancet," June 11th, 1870, "Enthusiastic Collyer is, to our mind, the true pioneer after all—the man who ran first."



APPENDIX.

The following letters, which passed between Morton and Wells, exhibit their limited knowledge on the subject of anæsthesia at the time:—

“ Boston, October 19th, 1846.

“ Friend Wells,

“ Dear Sir,—I write to inform you that I have discovered a *preparation*, by inhaling which a person is thrown into a sound sleep. The time required to produce sleep is only a few moments, and the time in which persons remain asleep can be regulated at pleasure; while in this state the severest surgical operations may be performed, the patient not experiencing the slightest pain. I have *patented* it, and am now about sending out agents to dispose of the right to use it. I will dispose of the right to an individual to use it in his practice alone, or for a town, country, or state. My object in writing to you is to know if you would like to visit New York and other cities, to dispose of rights in shares. I have used *the compound* in more than one hundred and sixty cases in extracting teeth, and I have been invited to administer it to patients in the Massachusetts General Hospital, and have succeeded in every case.

“ Respectfully yours,

“ WM. T. G. MORTON.”

To which Mr. Wells replies:—

“ Hartford, October 20th, 1846.

“ Dr. Morton,

“ Dear Sir,—Your letter dated yesterday is just received, and I hasten to answer it, for I fear you will adopt a method of disposing of your rights, which will defeat your object. Before you make any arrangement whatever, I wish to see you. I think I will be in Boston next week, probably Monday night. If the operation of administering the gas is not attended with too much trouble, and will produce the effects you state, it will be undoubtedly a fortune to you provided it is rightly managed.

“ Yours in haste,

“ H. WELLS.”

Drs. Jackson and Morton made oath conjointly on the 27th October, 1846, to wit—

“It has never, to our knowledge, been known until our discovery, that the inhalation of vapours, particularly those of sulphuric ether, would produce insensibility to pain, and we claim the application of ether or the vapour thereof substantially as described.”

How is it possible to reconcile this oath with Dr. Jackson's statement to Mr. Eddy?

“*Pecuniary sacrifices*” are claimed by Morton. The pecuniary idea seems to have been the prevailing sentiment with Wells, Morton, and Jackson. Wells writes to Morton in October, 1846:—“It will undoubtedly be a fortune to you, provided it is rightly managed.” Dr. Jackson makes it a *sine qua non* that he should receive 500 dollars in cash, besides 10 per cent. on all the profits of the patent, and subsequently he demanded 25 per cent., which Morton refused. Dr. Jackson makes oath with Mr. Morton on the 27th of October, 1846, that they are conjoint discoverers of the ether inhalation process. On the 13th of November Dr. Jackson writes the following letter to the Paris Academy of Science:—

“Boston, November 13th, 1846.

“I request to communicate, through your medium, to the Academy of Science, a discovery which I have made, and which I believe important for the relief of suffering humanity, as well as of great value to the surgical profession. *Five or six years ago,** I noticed the peculiar state of insensibility into which the nervous system is thrown by the inhalation of pure sulphuric ether, which I respired abundantly, first by way of experiment, and afterwards when I had a severe catarrh caused by the inhalation of chlorine gas. I have lately made a useful application of this fact by persuading a dentist of this city to administer the vapour of ether to patients when about to undergo the operation of extracting teeth. It was observed that no inconvenience resulted from the administration of the vapour.

“CHARLES T. JACKSON.”

The next communication to the Academy is—

“Boston, December 1st, 1846.

“The advantage of the application of the vapour of ether has been completely established in this country, and the agent has been used with great success in the Massachusetts General Hospital.

“CHARLES T. JACKSON.”

**Most indefinite.*—No notes or communication to any scientific journal having taken place by Dr. Jackson, who is wont to be most communicative on all occasions.

It will be observed that Morton is entirely ignored. Now the following document must be compared with the foregoing letters :—

“ State of Massachusetts, County of Suffolk.

“ On the 27th day of October, 1846, personally appeared before me Charles T. Jackson and William T. G. Morton, and made oath that they do verily believe themselves to be the original and first inventors of the improvement hereinbefore described ; that they do not know or believe the same to have been known or used, and they are citizens of the United States.

“ R. H. EDDY, Justice of the Peace.”

From Galignani's Messenger, Paris, Feb. 18th, 1847.

“ M. Serres communicated to the Academy the details of several experiments with ether on rabbits, but as they add little, except in the way of confirmation, to what was stated in the last sitting by M. Gruby, we do not think it necessary to give them here. In direct connection with this subject, however, we lay before our readers the following letter, which we have received from Mr. Wells, the first discoverer of the scientific application of intoxication as the means of rendering the body insensible to pain. We regret that, at a moment when the question of the value of this discovery, and the extent to which it may be safely carried, is under discussion in the Academy of Sciences, Mr. Wells has not made a communication to that body. The facts stated by Mr. Wells are highly important, and are entitled to the more consideration as coming from such a source. He says :—‘ As you have recently published an extract from the “ Boston Medical and Surgical Journal,” which recognises me as the discoverer of the happy effects produced by the inhalation of exhilarating gas or vapour in the performance of surgical operations, I will now offer some suggestions in reference to this subject. Reasoning from analogy, I was led to believe that surgical operations might be performed without pain, by the fact that an individual, when much excited from ordinary causes, may receive severe wounds without manifesting the least pain ; as, for instance, the man who is engaged in combat may have a limb severed from his body, after which he testifies that it was attended with no pain at the time ; and so the man who is intoxicated with spirituous liquor may be treated severely without his manifesting pain, as the frame seems in this state to be more tenacious of life than under ordinary circumstances. By these facts, I was led to inquire if the same result would not follow by the inhalation of some exhilarating gas, the effects of which would pass off immediately, leaving the system none the worse for its use. I accordingly procured some nitrous oxide gas, resolving to make the first experiment on myself by having a tooth extracted, which was done without any painful sensations. I then performed the same operation on twelve or fifteen others, with

the like results; this was in November, 1844. Being a resident of Hartford, Conn. (U.S.), I proceeded to Boston the following month (December), in order to present my discovery to the Medical Faculty—first making it known to Drs. Warren, Hayward, Jackson, and Morton, the two last of whom subsequently published the same, without mention of our conference. Since this discovery was first made, I have administered nitrous oxide gas and the vapour of ether to about fifty patients, my operations having been limited to this small number in consequence of a *protracted* illness which immediately ensued on my return home from Boston, in January, 1845. Much depends on the state of mind of the patient during the inhalation of gas or vapour. If the individual takes it with the determination to submit to a surgical operation, he has no disposition to exert the muscular system; whereas, under other circumstances, it seems impossible to restrain him from over-exertion; he becomes perfectly uncontrollable. It is well to instruct all patients of this fact before the inhalation takes place. The temperament and physical condition of the patient should be well marked before administering *the vapour of ether*; persons whose lungs are much affected, should not be permitted to inhale this vapour, as serious injuries have resulted from it in such cases. Nitrous oxide gas, or protoxide of nitrogen, is much less liable to do injury, and is more agreeable to inhale, producing at the same time equal insensibility to all painful sensations. It may be taken without the least inconvenience by those who become choked almost to strangulation with ether; in fact, I have never seen or heard of a single instance where this gas has proved in the least detrimental. ‘This discovery does not consist in the use of any one specified gas or vapour: for anything which causes a certain degree of nervous excitement is all that is requisite to reproduce insensibility to pain.’ Consequently, the only question to be settled is, which exhilarating agent is least likely to injure the system? The less atmospheric air admitted into the lungs with any gas or vapour, the better, the more satisfactory will be the result of the operation. Those who have been accustomed to use much intoxicating beverage cannot be easily affected in this manner. With cases of dislocated joints, the exhilarating gas operates like a charm; all the muscles become relaxed, and but very little effort will serve to replace the limb in its socket, and while the operation is being performed, the muscles do not contract as when in the natural state, but are as easily managed as those of a corpse. Allow me to add that, as I have had no opportunity of reading any of the French professional reports or discussions on this subject, I shall remain in Paris until the 27th inst., and in the interval I should be pleased to impart such information as I may have acquired by a close observation of the various phenomena connected with this interesting subject.

“HORACE WELLS.

“Rue d’Alger, Feb. 1847.”

"Saltillo, September 22nd, 1849.

"Exmo. Senor Gobernador del Estados de Cohuila Roberto H. Collyer, Doctor en Medicina, tiene el honor de companacer ante V. E. accompanande el diploma que accredita la Facultad Medica de Cuidadamo. Jesus Maria Campos, Presidente del y Ayuntamiento de Parras, con que manifesto á V. E. habeo poseido otros dos titulos peso habien dosidae asaltado par unos ladrones (23) me fueion robador defau Da me Salumte el que tengo el honor de acompania á V. E. Para que empuesto de su contenido se digne concedes me la licencia corresponentio par exercer mi facultad en Estados de Cohuila A. V. E. suplieo se digne de exetar a confermidad.

"ROBERT H. COLLYER.

"Saltillo, Setiembre 23 de 1849.

Seal
of the
Governor.

"Visto y examinado el titulo que presenta el interisado.

"RODRIGUES, Gobierno."

To which are added the license of the President of the Municipal Council of Saltillo.

It was in the Sierra Madre Mountains, on the 31st of July, 1849, that I was attacked by the banditti of twenty-three, who took from me my effects, together with the documents referred to in the letter to the "Critic" of April, 1847. The original of the Mexican official document is now in my possession.

The following from Dr. Henry Bennet shows how Mr. Wells fulfilled his promise :—

"Mentone, October 31st, 1868.

"My dear Dr. Collyer,

"I have no recollection of having received any further documents from Mr. Wells after the publication of my letter in the "Lancet" in 1847. Indeed, I think I may safely say that I did not again hear from him on that or any other subject. If I am not mistaken, his death occurred not long afterwards. Trusting you will succeed in establishing your position, of which fact, however, I do not doubt,

"Faithfully yours,

"HENRY BENNET."

Lille, France, June 5th, 1870.

"My dear Doctor,—As to Dr. E. E. Marcy, on whose evidence the Hon. Truman Smith and others seem to place so much reliance, I have merely to extract verbatim what he wrote to "The New York Journal of Commerce," December 30th, 1846, in order to show how completely ignorant he was at that time of the action of anæsthetics. He says, 'My opinion in regard to the use of nitrous oxide gas, sulphuric ether, or any other stimulant which acts upon the system in such a

manner as to render the body insensible to external impressions, is that it is decidedly unsafe, and in no given case can we be certain that it will not cause congestion of the brain and lungs. I have known the use of both the first-named articles (nitrous oxide and sulphuric ether) to give rise to temporary *congestion of brain and insanity.*'

"These words of Dr. E. E. Marey were written before the use of anæsthetic agents had been demonstrated universally by the profession, December, 1846. Many years subsequently, when their use was established, Dr. Marey then remembers for the first time having administered sulphuric ether in October, 1844, and *two months* before Wells's experiment, to some person, and actually cut an encysted tumour of about the size of an English walnut. It was entirely successful. Dr. Marey singularly forgets in 1858 what he said in 1846, and remembers in 1858 what he forgot in 1846. Is it probable that a person entertaining such extreme opinions as producing congestion of brain and lungs resulting in insanity in 1846, would have been the person to perform a surgical operation with entire success in 1844, similar to cutting out an encysted tumour of the size of a Yankee nutmeg, and that no mention should have been made of so wonderful an exploit at the time, nor even in the famous letter of 1846?

"No newspaper, no medical journal, is communicated with at the time, yet we find Dr. E. E. Marey, in 1846 and 1847 and subsequent years, most ready to appear in print in order to destroy the claims of William T. G. Morton, of Boston. Yet this gifted individual, who in the most decided and unqualified manner declares that nitrous oxide and sulphuric ether are 'decidedly unsafe, producing congestion of the brain, lungs and insanity,' in 1846 has the temerity to cut out tumours of the size of English walnuts in 1844 with entire success, and that too with the aid of *sulphuric ether !!!*

"Really, that such wild, unfounded misrepresentations should be credited by a man of the intelligence of the Hon. Truman Smith is truly astonishing. Yet this is the kind of material which he uses to vindicate the claims of the few haphazard, accidental experiments performed by Horace Wells in December, 1844, and January, 1845, which "he *abandoned* as being convinced that they had no practical value." (Vide Reports before Committee of Congress.) I would not have taken the trouble to expose this inconsistency had not the late distinguished Sir James Simpson referred to it in his last publication.

"Yours very truly,

"ROBERT H. COLLYER.

"To Dr. Benjamin W. Richardson."

“Lille, France, January, 1870.

“Had the practical suggestion and application of nitrous oxide gas by Sir Humphrey Davy been followed up by the surgical profession at the date of his researches (1800), no one would contend, or even pretend, that the merit of the anæsthetic discovery did not belong alone to that illustrious chemist.

“It is perfectly true that Sir Humphrey Davy did not enter into the physiology of the anæsthetic condition induced; nor did he ever produce a comatose state. His experiments were confined to the first state, that of *excitement*, and he confined his idea to nitrous oxide gas.

“When the negro, ‘Bob,’ had been rendered unconscious by the inhalation of the fumes from rum in December 1839, and whose femur had been dislocated, which was reduced prior to his return to a state of consciousness, this was so remarkable a phenomenon as to elicit the special attention of my father and myself. All the cases of ordinary intoxication, where men had received severe injuries without any apparent sensibility, were discussed. It was at this time that the physiology of brain in this connexion first suggested thoughts which ultimately resulted in a fixed conviction that the inhalation of narcotic and stimulating vapours, by increasing the action of the lungs, caused a nervous congestion of brain which deprived the surface of the ordinary supply of sentient nervous fluid. When I stated to my father the fact of my having been rendered insensible by the inhalation of sulphuric ether in the chemical lecture-room of the University College, London, our conviction was established that nearly all the stimulating gases and vapours would, when inhaled, produce a state of unconscious insensibility.

“In the following year (1840), at Charlestown, South Carolina, I made some experiments in corroboration of these conclusions. In 1841 my time was occupied in the investigation of the phenomenon called animal magnetism, which eventuated in the report of the Boston Committee composed of the principal members of the medical, clerical, and legal professions.

“I never claimed anything for animal magnetism, but met my audiences as an investigator in common with themselves. Committees were invariably appointed by the audience, and the experiments made at their suggestions through the medium of the committee appointed.

“In the autumn of 1841 every species of surgical operation was performed during the anæsthetic state, induced by the mesmeric process; these were published. It was not, however, until 1842 that the special subject of the inhalation of narcotic and stimulating vapours claimed my attention, in order to repeat the feats of the Egyptian magicians. Of course, I did not omit repeating in the lectures the experiments on myself of inhaling sulphuric ether at the

London University College, and the case of the negro, 'Bob,' in Louisiana, 1839. These anecdotes were always a feature in my lectures. On several occasions, both in Philadelphia and Boston, I passed powerful electric charges through persons rendered unconscious by the inhalation of narcotic and stimulating vapours, to demonstrate the unconscious state produced. On one occasion, in the month of April, 1843, Dr. Hare, Professor of Chemistry, University of Pennsylvania, assisted me in these experiments. It was at this time that I wrote this passage in my work, 'Psychography,' published in Philadelphia, May, 1843:—

"THE POWER TO PRODUCE THE CONGESTIVE OR UNCONSCIOUS STATE OF BRAIN IS NOT *confined* to the nervo-vital fluid of a second person. THE SAME STATE OF THINGS MAY BE BROUGHT ABOUT BY *mental* excitement, accompanied by muscular action—THE INHALATION OF NARCOTIC AND STIMULATING VAPOURS.' Not, however, content with proving the entire insensibility by the aid of electricity, I publicly extracted teeth during the anæsthetic state induced by *inhalation*.

"I at that time considered the state thus brought about to be identified with that of *mesmeric coma*, and in proof of which fact I state at page 27 of 'Psychography' (1843) that the condition of the pythoness or priestess who *inhaled the fumes* in the Delphic Temple to be IDENTICAL with that of the mesmerized person. The same words are repeated by me in explaining the condition of the persons who were rendered insensible by the inhalation of narcotic fumes in the feats performed by the Egyptian magicians. The circumstance of the surgical profession not having taken advantage of my published statements and public experiments, that 'the inhalation of stimulating vapours produces an anæsthetic state,' does not militate as to the priority, or render my discovery of less value.

"It is most certain that had they done so in 1842 and 1843, no one would have disputed my claim. Individually I took every means to promulgate these facts to the world. I lectured and performed experiments on inhalation in all the principal cities of the United States, Canada, Liverpool, and London. Did any of those who followed me in 1844 and 1846 explain the physiology of the nervous system, especially the condition of the brain, which I had previously done?

"I cannot imagine how Horace Wells, or those who vindicate his claim, can attribute any merit in his having inhaled nitrous oxide, and had a tooth extracted, which he had seen administered by Mr. Colton the previous evening.

"It is admitted that Mr. Wells was not a man of education, nor had he any scientific information as to the properties of protoxide of nitrogen. Had he been acquainted with the physiology of the brain and nervous system, he would have rendered the persons unconscious. We have the most positive evidence that he did not administer the gas beyond the stage of *excitement*, as Dr. P. W. Ellsworth, in writing to

the "Boston Medical and Surgical Journal," distinctly states (June 18th, 1845): 'THE PATIENTS APPEAR VERY MERRY DURING THE OPERATION, and no unpleasant effects FOLLOW THE USE OF THE NITROUS OXIDE GAS.' Nothing can be more plain than that UNCONSCIOUSNESS was never induced; there was only a *partial* anæsthetic state. How is it that Dr. Ellsworth makes no mention of the use of sulphuric ether by Mr. Wells? This is most important, as showing how extravagantly Mr. Wells wrote in "Galignani's Messenger" when in Paris, in February, 1847, AFTER he had heard of Morton's extraction of teeth during an anæsthetic state, induced by the inhalation of *ether*. It was only then that, for the first time, he says:—'I have administered the nitrous oxide and the *vapour of ether* to about fifty persons.' Not a single document can be produced in confirmation of this statement.

"It is a curious anomaly that Morton, who was a partner of Wells, should not have ever heard of this administration of ether. For it is beyond all question that Morton had got his idea from a Mr. Speires, who had seen ether given at the Lexington University, in lieu of nitrous-oxide gas, to the students; the same as I had seen and experienced several years previously administered by Dr. Turner, Professor of Chemistry at the London University.

"When Morton called on Dr. Jackson, he in all probability merely required a suitable apparatus, in order to administer the *sulphuric ether*. This must be the conclusion of all impartial critics. As to the story he invented about having made experiments on a Newfoundland dog prior to this period, there does not appear the least probability as to its being true.

"Had he made these prior experiments, he never would have been so anxious and shown such ignorance relative to where he could obtain sulphuric ether, and 'what kind of stuff it was!' Dr. Jackson indicated to him that it could be purchased at Burnett's, where he, Morton, accordingly went, and purchased the ether. This fact has been proved beyond all question. Now it follows that Morton was entirely ignorant of its properties at this time—this is, when he went to Dr. Jackson, or as to where the proper ether could be obtained. This part of the history is equally prejudicial to the vaunting assertion of Wells in 1847, that he had 'administered the ether to fifty persons.'

"The constant disposition to romance and indulgence in exaggerations is too manifest both on the part of Horace Wells and W. T. G. Morton. They were both entirely ignorant of the physiology of the action of the anæsthetic agents, even at the time of taking out the *letters patent*, for these words are used,—'THERE IS VERY NEARLY, if not entire absence of all pain.'

"Dr. McIntyre says, 'that when Morton was leaving, Dr Jackson said, 'I will tell you what will answer as well as nitrous oxide gas.' Morton asked what it was. Dr. Jackson told him to go to Burnett's and get some pure sulphuric ether, pour it on a handkerchief and

causo the patient to inhale it. Morton asked what sulphuric ether was, what sort of looking stuff it was! I stayed in the front room while Morton and Jackson went to look at the ether. I am satisfied he knew nothing about its properties or nature. I heard Morton ask Dr. Jackson very particularly whether it would be safe to use it. Dr. Jackson assured him that it was perfectly safe, and alluded to the students at Cambridge having used it. Morton appeared to be afraid to use the *ether*, and asked him several times if it was safe. Dr. Jackson advised Morton to try it on himself. Morton asked me if I would be willing to try it. I told him I would.'

"It is conclusive that if Morton had known anything of the chemical properties of sulphuric ether, he never would have gone to Dr. Jackson at all. The very fact of his going proves two things, that he had never made any previous trials, as he has since stated; and secondly, that *sulphuric ether* was *not known* to Horace Wells, who was Morton's partner. (Vide "Galignani's Messenger," February 15th, 1847.

"As I have said before, these experiments both of Horace Wells with nitrous oxide and Morton with sulphuric ether, were mere casual, haphazard trials; there was no inductive reasoning, no scientific knowledge exhibited neither in the one case or the other.

"My public experiments in 1842 and 1843 with alcohol, sulphuric ether, stramonium, poppy head and seeds, coriander seeds, &c., the fumes of which were inhaled, and a complete state of unconsciousness produced, had at least the merit of having been arrived at from the knowledge of the physiology of the brain and nervous system. The sudden, I may add magical adoption by the medical profession in 1846 and 1847 of the necessity of producing a state of anæsthesia, so that surgical operations could be performed painlessly, cannot disturb the remarkable announcement by Sir Humphrey Davy in 1800:—'As nitrous oxide in its extensive operation seems capable of destroying physical pain, it may probably be used with advantage during surgical operations in which no great effusion of blood takes place.'

"Certainly these words admit of no ambiguity; they were published by one of the most illustrious of England's men of science, and yet not a member of the profession takes the trouble to make experiments in confirmation. I cannot therefore be surprised, after this inexplicable apathy, that my public experiments from 1841 to 1844 should have remained unheeded. How is it that the experiments made by Horace Wells before Dr. Warren's medical class, in the month of January, 1845, also had no effect in arousing the medical profession?

"Had not Morton associated himself with Dr. Charles T. Jackson in 1846, and taken out *letters patent*, I doubt much if the profession to this day would have recognised the necessity of inducing the anæsthetic state. It was the mysterious charlatanism of the *patent business* of Morton and Jackson which *induced its adoption!*

"It is positively certain that I induced an anæsthetic state for surgical operations in 1841, 1842, 1843. Had I not done so, then there might be raised the question as to the right or justice of my name being associated with the anæsthetic discovery. But as I took every available opportunity to publish these facts for the benefit of my fellow-men without dreaming of a patent, there is no reason why my name should not be connected with a discovery which is an aid of incalculable importance to the science of surgery, in rendering the patient perfectly passive during operation. It is a discovery which has from the earliest ages been mythically and poetically dreamt of. Its realisation and adoption render it the greatest blessing which man has in his power of applying to his suffering fellow-being, to obviate the physical agony and mental dread incidental to surgical operations. In 1839 Velpeau, one of the most distinguished French surgeons, said, 'To avoid pain in surgical operations is a chimera, which cannot be permitted to be entertained or sought for.'

"Yours truly,

"ROBERT H. COLLYER, M.D.

"To Sir J. Y. Simpson, Bart., Edinburgh."

EXPLANATION OF THE IMAGINATIVE CASE INVENTED BY JACKSON AND MORTON.

One of the most remarkable instances of human credulity is exemplified in the flagrantly concocted story of Drs. Jackson and Morton having for the past thirty years escaped the detection of the scientific world. The pretended conversation relative to acting on the *imagination* of a lady, relative to the action of anæsthetics, at a period when they themselves had not discovered the anæsthetic properties of ether, that is, prior to September 30th 1846. (Vide the conjoint oath of Drs. Jackson and Morton.)

To act on the imagination necessarily presupposes a complete knowledge of the properties of the substance which is intended to be substituted for the imaginative condition. How could a person be acted upon imaginatively, by giving a dose of a material resembling ippecacuanha, and expect an emetic effect, if the properties of ippecacuanha were unknown to the patient or the persons who administered it?

To produce an imaginative result, the real properties must have been previously ascertained. The imaginative effect is the reproduction of information, already furnished by experience. There was *no material* for the imagination to act on. Without this necessary information, it is an utter impossibility that any imaginative effect could take place!

The criminal referred to, who imagined, when blindfolded, that he was bleeding to death when only a small stream of lukewarm water was running over his arms, had he not been previously acquainted with the fact that bleeding in this manner would produce death—no effect could have been made in his imagination.

It is, therefore, impossible that Drs. Jackson and Morton could have had such a conversation relative to acting on the *imagination* of the lady, when they themselves were ignorant of the anæsthetic properties of ether and nitrous oxide at the time the conversation is stated to have taken place, that is, previous to September 30th, 1846. The concoction of such a story, which admits of such positive refutation, is in accordance with “their whole procedure in securing letters-patent, suppressing all acknowledgment of my publications and lectures.

Mr. Charles James Fox, dentist, of Mortimer Street, had “an imaginative case,” which occurred in the following manner:—A patient called on him to have a tooth extracted during the anæsthetic state by the inhalation of nitrous oxide gas. The patient inhaled, as he supposed the gas, and felt no pain whatever. On Mr. Fox examining the apparatus, the gas had not been turned on. Here was a case of the powerful effect of the imagination, as both operator and patient were under the full conviction that the gas had been inhaled.

The same has occurred to Messrs. Meggridge and Davis, dentists, 143, Strand.

CHARING-CROSS HOSPITAL.

January 25th, 1877, 2 p.m.

I have just seen a child of about six years rendered anæsthetic by the inhalation of chloroform, which was most ably administered. I was obliged to leave the operating theatre from the same cause which induced me to *over-sympathise* with the patient when a student. I was delighted to discover that my nature had not been blunted by time, and that all my sensitive feelings were as keen as in my more youthful days.
